Southern California Association of
Marine Invertebrate Taxonomists

May, 2003

SCAMIT Newsletter

Vol. 22, No. 1

SUBJECT:	**Bight 03 Polychaetes**
GUEST SPEAKER:	**Larry Lovell**
DATE:	**11 August 2003**
TIME:	**9:30 a.m. to 3:30 p. m.**
LOCATION:	**City of San Diego Marine Biology Lab** **4918 N. Harbor Dr. suite 201**

Liponema brevicornis expanded in the laboratory. Note the inflated stomodeal lips. An upside down specimen is visible on the upper right; note the small basal disk.
- D. Cadien

APRIL MINUTES

The first to have the floor was Don Cadien, who wanted to discuss the concept of specialist taxonomy for the upcoming Bight'03 project. He felt that this option benefited the data during the B'98 project and was a worthwhile endeavor. He recommended the following groups be identified by a specialist - all Anthozoa, which we would need a volunteer for (this position has since been filled by John Ljubenkov), and the Aplacaphorans, which Don has volunteered to do with the help of Kelvin Barwick. The following three groups were also suggested - Nemerteans, Enteropneusts and Polyclads. The polyclads are pending with some tentative offers and to date, no brave soul(s) has stepped forth and offered to tackle the nemerteans and/or the enteropneusts, so they will be handled individually by the participating agencies.

The SCAMIT Newsletter is not deemed to be a valid publication for formal taxonomic purposes.

As far as the type of samples to be taken, LACSD conducted some trial sampling using both 0.5mm screens and 1.0mm screens. The data between the two were analyzed, and it was deemed unneccesary to take .5mm samples as the resultant sorting effort was greater than the value of the data gathered. CSD and CLAEMD conducted the same sampling test and agreed with the results of LACSD. Therefore, a 1mm screen size shall be used when conducting benthic sampling for the B'03 project.

A brief discussion then arose as to whether we shall be using the Bight Listserver established by SCCWRP for the last Bight project, or if we would be using our new SCAMIT listserver to distribute information and questions regarding the project. It was decided that we will use the SCCWRP Bight server and then "CC" the SCAMIT listerserver in order to distribute the information as widely as possible.

Ron Velarde (CSD) then proceeded to tell us about the Marine Bioinvasions Conference at Scripps which he had attended (and presented at) earlier in the month. According to Ron, the primary theme of the meetings was early detection; how to develop techniques to discover invaders quickly and dispose of them as efficiently as possible. A second theme was the biology of the invaders themselves; what vectors are being used for transportation? What is their life history? One interesting subject for Ron to learn of was the technique of "molecular detection", where molecular markers are used to identify an invader and its place of origin. For example, an invasive Whelk found in Chesapeake Bay was thought to have been introduced from Japan. However, molecular marker work revealed that the animals had come from the Baltic, where they had previously been introduced.

Algal invasions have also become a big area of concern. In Hawaii invasive algae is harming coral reefs. And, we've all heard of the *Toxofolia* scare and the damage it can cause in an environment.

With the business meeting concluded Kelvin Barwick launched into an extensive and thorough examination of the Eulimids. However, his notes, tables and voucher sheets are not yet ready for publication and are still under review. They will hopefully be complete by the time the June newsletter is published.

ELECTION RESULTS

Surprisingly enough, the current suite of officers were re-elected by a land-slide. I know, hard to believe, but true. SCAMIT members will have another year to come up with good write-in candidates for next year's election….

OBSERVATIONS ON CAPTIVE *LIPONEMA BREVICORNIS*

D. Cadien, CSDLAC 28 February 03

On 24 February a test trawl made at 501m (mean depth, depth range 498-510m) on the slope below the San Pedro Sea Shelf yielded some unusual animals. The trawl was taken to demonstrate that the nominal deepest depth included in the random draw for the B'03 trawling program could be reached by our sampling vessel and gear. The mud on the head ropes and the contents of the cod-end of the net were proof that we did indeed fish on the bottom at that depth.

The catch was small, but included a number of dome shaped cnidarians which proved to be anthozoans. They looked like large mushrooms with the stems broken off (except for the lack of gills on the underside). We didn't know what these were in the field, so brought them back to the lab for further investigation. We kept them in refrigerated sea-water on board, and moved them into the sample receiving cold-room at our lab

(temperature maintained at 3-4 degrees C). Many of the animals had very irregular distribution to the numerous small tentacles on their oral disks, some being "bald" over a good portion of the disk. This lead to the conclusion that the tentacles were easily lost, and probably voluntarily autotomized by the anemone.

My reference resources were exhausted without providing me a clue as to the identity of the animals, so I called John Ljubenkov. I told him what I knew about the creatures, and the combination of numerous deciduous tentacles and small pedal disk (only 30-40 % of oral disk diameter) led him to suggest that this was probably *Liponema brevicornis*, commonly referred to as the "barrel anemone". I checked out this name on the anemone website, and was able to match a photograph of the holotype to the field appearance of our animals (thank you Daphne!). Having put the identification on a firmer basis I snapped a few digital pictures and went home.

The next day we got fresh seawater to place the animals in, prepared a larger container to receive them, and moved them to new quarters. Overnight they had expanded enormously in the cold room. I expected their tight quarters and limited access to oxygen (there were three large, two medium-sized, and 2 small individuals in a 6 inch diameter plastic bowl) to have taken a toll. To my amazement and delight they were quite happy (at least the larger individuals). The two smallest had been largely smothered under the expanded disks and columns of the larger individuals and never recovered. The smallest individuals expanded size is estimated at 1.5 inches disk diameter.

Once transferred to an 18x12" plastic tray they could continue to expand and spread out. The two medium sized individuals (disk diameter 2-2.5 inches when measured later) had assumed an entirely new and unfamiliar form. Their oral disks essentially disappeared from view. This resulted from the great inflation of the column which caused in-rolling of the oral disk. The result was reminiscent of a beach ball with a sizeable pore at one end (where the in-rolled oral disk was) and a pedal disk rim at the other. The swollen column between them was so distended that the paired mesenteries were clearly visible through the body wall. In some areas gonadal material was also visible along the mesenterial pairs. The pedal disk was clearly defined in photographs of these animals. A central pore was discernible in one of the two individuals, and also seemed indicated in the second. Even when columns were fully distended the pedal disk was demarcated by a raised rim. The inflated form was retained by these two individuals until they spent another night in the cold room in the larger container. During that period they reduced the inflation of the column, revealing once again their oral disks. At no time during observations were any of the animals seen to make an effort to attach to any substrate. This could have been a result of being placed on an unfamiliar surface (plastic), but there was no evidence of attempted and rejected attachment.

All further comments are on the three largest individuals (expanded disk diameter 4-5 inches), which had retained the majority of their tentacles and seem to have suffered least during capture. In the field, and in the smaller dish immediately following return to the lab, the animals had a convex oral disk, and a completely retracted column. Now, as they expanded in their new quarters, the oral disk lost its convexity, becoming first flat and later concave. This concave state resulted from expansion of the column by uptake of seawater. The column began to extend, separating the oral and pedal disks. It became more and more inflated in the middle, causing in-rolling of the edges of the oral disk. This never proceeded as far with these larger specimens as it had with the medium sized ones described above. In the large individuals the oral disk was always visible, even if the edges became slightly in-rolled with the sides of the column expanded out beyond the disk edge as viewed from above. It was clear, however, that these animals

could also completely in-roll the oral disk if they wished by continued inflation of the column to attain the beach ball shape which their smaller brethren had assumed.

When first handled in the field these animals were flesh colored with variously lightened or darkened tentacles. In the laboratory upon recovery and expansion they proved to have a more pronounced pinkish cast than was initially visible. The tentacles were in some cases dark brown colored, in others much the same color as the base color of the animal. On some of the more flattened tentacles near the edge of the disk the color was that of the body, but the tentacles were bordered in black.

Tentacles were very numerous in those specimens least affected by capture. There were too many for direct counts on the living specimens, but based on quadrant counts of photographed individuals, an estimated 150-225 tentacles were present. These had a slight taper from base to tip in the tentacles around the stomodeum, and a more pronounced taper accompanied by flattening in those along the edge of the disk. Tentacles were slightly sticky to the touch. There was no "sting" from unprotected contact with tentacles or any other part of the animals. No arrangement was evident, either circular or radial, in the placement or relative sizes of the tentacles. The tentacles were lost relatively easily, and many were seen floating free in the water of the tank into which the catch was transferred on the vessel. These were examined at the time and had very expanded bases, which made them look like sipunculans. According to John Ljubenkov, the deciduous nature of these tentacles results from each being equipped with a basal sphincter which is capable of pinching off the tentacle at will. In one of the photographs taken in the laboratory such sphincters seem clearly visible in an area of the oral disk where tentacles had been autotomized.

In the photographs taken soon after return from the field, when the oral disk was still convex, the stomodeum appears small and circular, and the stomodeal lips uninflated (indeed, not evident). Once relaxed in the laboratory the stomodeum enlarged and elongated, and the lips were inflated and everted. At their most everted, the siphonoglyphs were clearly visible at each end of the elongated stomodeum, and were lighter in color than the stomodeal lips.

While the animals were sensitive to touch, and would respond by localized retraction to a poke on the edge of the oral disk, all reactions were slow and measured. Lightly touching a tentacle elicited only slight movement of the tentacle away from the stimulus and no reaction on the disk itself. Mucous was produced by the animals (whether from the column or disk was not clear) but not copiously. After three days of maintenance in the cold room the animals were showing signs of distress despite water changes, and were formalin fixed. During handling preparatory to fixation they readily and rapidly dewatered, releasing the seawater with which the columns and disks were inflated.

Please visit the SCAMIT Website at: **http://www.scamit.org**

SCAMIT OFFICERS:

If you need any other information concerning SCAMIT please feel free to contact any of the officers at their e-mail addresses:

President	Kelvin Barwick	(619)758-2337	kbarwick@sandiego.gov
Vice-President	Leslie Harris	(213)763-3234	lharris@nhm.org
Secretary	Megan Lilly	(619)758-2336	mlilly@sandiego.gov
Treasurer	Cheryl Brantley	(310)830-2400x5500	cbrantley@lacsd.org

Back issues of the newsletter are available. Prices are as follows:

Volumes 1 - 4 (compilation)	$ 30.00
Volumes 5 - 7 (compilation)	$ 15.00
Volumes 8 - 15	$ 20.00/vol.

Single back issues are also available at cost.

The SCAMIT newsletter is published monthly and is distributed freely through the web site at www.scamit.org. Membership is $15 for the electronic copy available via the web site and $30 to receive a printed copy via USPS. Institutional membership, which includes a mailed printed copy, is $60. All new members receive a printed copy of the most current edition of "A Taxonomic Listing of Soft Bottom Macro- and Megainvertebrates … in the Southern California Bight." The current edition, the fourth, contains 2,067 species with partial synonyms. All correspondences can be sent to the Secretary at the email address above or to:

SCAMIT
C/O The Natural History Museum, Invertebrate Zoology
attn: Leslie Harris
900 Exposition Boulevard
Los Angeles, California, 90007

CSDLAC specimens 0797-0C & 0798-0C March 2003
Examined by T. Parker

Literature: Blake, J. A. 1996. Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and Western Santa Barbara Channel. Volume 6, The Annelida part 3: pp 225-232.

Imajima, M. 1989. Poecilochaetidae (Annelida, Polychaeta) from Japan. Bull. Nat. Sci. Mus. Series A (Zoology) 15: 61-103.

Martin, M. 1977. Proc. SCCWRP Taxonomic Standardization Prog. Vol. 5 No 3. May 1977.

Leon-Gonzalez, J. A. 1992. Soft bottom polychaetes from the western coast of Baja California Sur, Mexico. II. Poecilochaetidae. Cah. Biol. Mar. (33) 109-114.

Miura, T. 1989. Two new species of the genus *Poecilochaetus* (Polychaeta, Poecilochaetidae) from Japan. Proceedings of the Japanese Society of Systematic Zoology No. 39: 8-19.

Synonymy: *Poecilochaetus* sp A Martin 1977.

Diagnostic Characters:

1. Ampullaceous or "bottle shaped" post setal lobes begin on setigers 7-13.

2. Branched branchia on posterior face of parapodium begin at setiger 14. L. A. harbor specimens may begin at 12. Branchial filaments partially retractable, increasing in number in more posterior segments. (Figure 1)

3. Without blunt spines in setigers 22-46. Spinose setae and plumose setae both present. (Figure 2).

4. Lacks chitinous brown triangular tooth on dorsum of setiger 9 found on *P. johnsoni.*

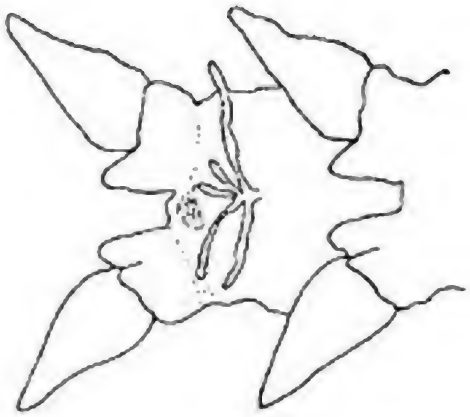
Related Species and Differences:

Poecilochaetus johnsoni: Lacks parapodial branchia. Blunt spines with hirsute tips. Segment 9 with mid-dorsal chitinous tooth.

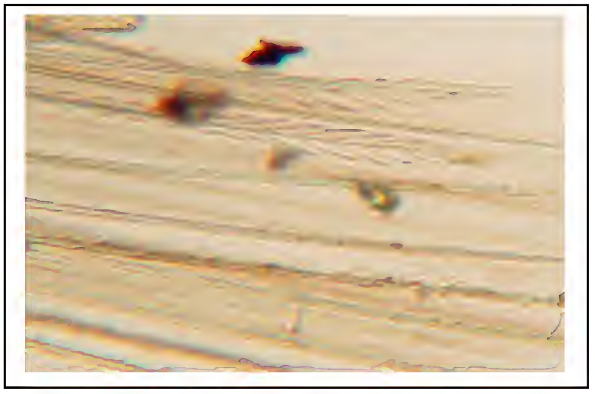
Poecilochaetus multibranchiatus: Branchial filaments begin setiger 12 with both dorsal and ventrally placed groups. Initially each group with 2-4 filaments increasing posteriorly to maximally 11 filaments.

Poecilochaetous sp A Blake 1996: Lacks branchia. Probably juvenile *P. johnsoni.*

Distribution: Southern California coastal bottoms in depths of 30-60 meter (10 M L.A. harbor).



Parapodia 25 posterior view w/branchia. From Martin 1977
Figure 1.



Plumose and spinose setae
Figure 2

Table 1. Setiger number with feature. (after de Leon-Gonzalez)

	ampullaceous lobes	first setiger w/ branchial	max # branchial filaments	nuchal organs to setiger #
P. serpens	7-13	21	2	3
P. tropicus	7-13	19	2	9
P. modestus	7-11	18	2	3
P. exmouthensis	7-13	19	2	5
P. branchiatus	7-10	20	4	1
P. trilobatus	7-13	18	2	8
P. clavatus	7-10	20	2	3
P. spinulosus	7-13	17	4	3
P. tricirratus	7-11	13-17	3	3
P. multibranchiatus	7-11	12	11	3
P. sp A of SCAMIT	*7-13*	*14*	*5-6*	*4-5*
P. sp A of Blake	*7-11*	*none*	---	*<4*
P. johnsoni	*7-13*	*none*	---	*4-5*

Southern California Association of
Marine Invertebrate Taxonomists

June, 2003

SCAMIT Newsletter

Vol. 22, No. 2

SUBJECT:	**Continuation of Bight'03 Polychaetes**
GUEST SPEAKER:	**Larry Lovell**
DATE:	**22 September 2003**
TIME:	**9:30 a.m. to 3:30 p. m.**
LOCATION:	**City of San Diego Marine Biology Lab** **4918 N. Harbor Dr. suite 201**

Melanella rosa Type No. 1075; LACMNH
125 fms off Redondo, CA

MAY MINUTES

The meeting began with Paul Valentich Scott, our host for the day, discussing the increasing requests from scientists for non-formalin fixed material. Those wanting to do any type of DNA analysis would prefer animals fixed in 95% (or higher) ethanol. Or, better yet, to be frozen initially and then, if necessary, stored in 100% ethanol. Larry Lovell (SIO) then stated that the larger, more dense the animal, the higher percentage of ethanol needed for proper fixation and preservation.

The issue then arose of destructive sampling of museum collections. Many specimens are being destroyed for DNA, oxygen isotope, etc, analysis. The resulting problem being that if the animal is destroyed during analysis, how can one ever confirm that the specimen was originally, correctly identified.

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Don Cadien (CSDLAC) then asked if the common practice of relaxing animals before preservation interferes with DNA analysis. The normal technique for specimen relaxation is a solution of Epsom salts (75 grams of Magnesium Sulfate per liter of freshwater) for 30 minutes. Paul was not sure and thought this was a good question. Perhaps one of our readers working in the DNA field can help us out?

We had a surprise visit from Leslie Harris (LACMNH) who had kindly driven up to the meeting to distribute copies of the Irene McCulloch 4 volume set of Qualitative Observations on Recent Foraminiferal Tests which had been requested by members. Demands on storage space had led to their heading for very deep storage (or perhaps discard) and so the offer was made and gladly accepted by interested members. Each set weighs about 15+ pounds, so Leslies's car had a very low rear-end when she arrived. Our thanks to her and to the museum for making these available after years of seclusion at the Allan Hancock Foundation in Jerry Bakus' lab.

It was now time to discuss bivalves. It was noted that there seems to be a grade between *Parvilucina tenuisculpta* and *P. approximata* making these species difficult to separate in the Southern California Bight. They are much more easily distinguished to the south of us in the Panamic region. Most of us present pretended not to hear that tid-bit of information…

Tony Phillips (CLAEMD) brought a specimen from 400m, for viewing. The animal turned out to be *Neilonella ritteri* (see pg 108 in Coan et al 2000). Paul cautioned us with the juveniles of this species as they tend to be more symmetrical and the umbones are almost central.

Tony's next specimen was from 402m in Santa Monica Bay. Paul guessed it to be a species of *Malletia*. When ID'ing this animal look for a slight sinus creating an angle in the outline of the shell (see page 102 in Coan et al 2000).

Kelvin Barwick (CSD) had brought digital images of some specimens that were captured in 500m off San Diego. They constituted a mixed lot of two different species. The first was in the "*Yoldia*" group. We decided to call it *Megayoldia* sp SD 1. It has a large obvious resilifer. Paul stated we would need a larger specimen to get the ID to species. The second animal threw us for a loop as well. The resilifer was smaller and teeth were more evident. Some guesses at ID were a juvenile *Yoldia* or *Nuculana conceptionis*. To check on the second guess, Tony Phillips brought out a specimen of an actual *Nuculana conceptionis* from 402m in Santa Monica Bay. The species is almost truncate posteriorly and has a very, thin, translucent shell (see pg 90 in Coan et al 2000). Upon comparison, we did not feel confident enough to call Kelvin's second specimen this species. Paul recommended leaving it at Protobranchia unidentified. He cautioned us again about trying to identify juvenile specimens.

Next Kelvin brought out a specimen of what he believed was *Dacrydium pacificum* (see pg 175 in Coan et al 2000) from a CSD pre-Bight'03 deep test station (DS1) at 508m. It was collected on both a 1mm screen fraction and a 0.5mm fraction. The ID was confirmed by Paul Scott.

Tony then brought out a specimen collected at the LA3 dumpsite in 500m. It turned out to be *Luzonia walleri* (see page 557 in Coan et al 2000).

After a wonderful lunch break we started back with specimens. Paul showed us a Poromyidae with a big "honking" (Paul's term), projecting tooth with no lateral teeth evident, and with a slightly punctate shell. The animal was

Dermatomya mactroides and is predatory like all septibranchs. Paul would like to make a request for specimens of any of the Poromyidae, especially the bodies.

He also showed us a specimen of *Vesticomya* from a cold seep at 1000m and a specimen of *Cyclopecten* from 3600m.

A specimen of *Leporimetis obesa* (see page 148 in Coan et al 2000) from 8m in Marina del Rey was the last animal to be viewed. The City of San Diego has also seen this animal on a few occasions. It has been collected in some of CSD's relict red sand stations which always have an interesting and unique faunal assemblage, and in Mission Bay. .

BELATED EULIMID MINUTES

Due to the quantity and quality of the information produced at the Eulimid meeting in April, the minutes, tables and voucher sheets are just now finished and are included below and at the end of the newsletter.

A review of the Eulimidae (Mollusca: Gastropoda) reported by the major benthic monitoring programs in the Southern California Bight

- Kelvin Barwick and Sarah Douglass

The publication of McLean's (1996) revision of the California offshore eulimids raised a number of questions regarding the species reported by SCAMIT. Consequently we recently undertook a careful review of the species listed in SCAMIT, 2001. This included a review of the published literature and examination of numerous specimens from participating SCAMIT members and agencies. Numerous species lots at the Los Angeles County Museum of Natural History (LACMNH) were examined as well. What follows is a brief overview of that research as well as the decision made as a result of our presentation to SCAMIT on April 14, 2003. The original PowerPoint presentation is available in PDF format upon request from the authors at: kbarwick@sandiego.gov.

The family Eulimidae Philippi, 1853 (following Warén, 1992; McLean's (1996) attribution to Troschel is in error) contains about 1250 described species, including approximately 425 fossil forms. Diversity of form within the group is characterized by Warén (1984) as being "as great as all other Prosobranchs." The only complete monographic treatment of the taxonomy of west American Eulimidae is Bartsch, 1917. The California eulimids were reviewed by McLean (1996). Warén (1984) reviewed the worldwide genera. Table 1 summarizes the literature reports of eulimid species reported from southern California.

The plates from Bartisch, 1917, have been digitized and are posted on the SCAMIT web site. The URL is:

http://www.scamit.org/New%20Taxonomic%20Tools/Bartsch%201917%20Eulimidea%20plates.pdf

Based largely on character states suggested by Bouchet and Warén (1986), a suite of shell characters was suggested. Some of the more useful traits are discussed below. See Table 2 for a synopsis of shell characters for the local specimens examined by the authors.

Despite overlap between some species, the overall shell length and maximum diameter are of taxonomic utility. The relative proportion of height to width can also be diagnostic.

The number of whorls in relation to overall shell dimensions has taxonomic value. For this study no distinction was made between protoconch and teleoconch. The count included the first visible body whorl (which includes part of the protoconch), being careful not to count the false suture. The false suture is an

optical effect caused by the internal contact between whorls as seen through a translucent shell. This can give the appearance of a suture line (fig 1).

The outer lip shape as viewed from the side is used by most eulimid workers with the notable exception of McLean and Bartsch. In the present study only two conditions were recorded: sinuous (Plate 1, fig. C) and evenly curved (Plate 1, fig. A). Bouchet and Warén (1986) suggested a more specific nomenclature for describing the outer lip. This more rigorous methodology was not, largely for practical reasons, adopted in the present study.

the growth scars on one side of the shell (Plate 3, fig. B & D). The thickening of the shell in that region causes the curve. Some workers, including McLean (1996), use the character to define genera, i.e., *Vitreolina*, which is followed here.

Warén (1984) gives a thorough account of known eulimid reproductive strategies. Of the local genera *Melanella* and *Vitreolina* are reported to be gonochoristic. The genus *Eulima* is known to be a protrandric hermaphrodite. Significantly, sexual dimorphism can be reflected in shell morphology, i.e., large females and smaller males.

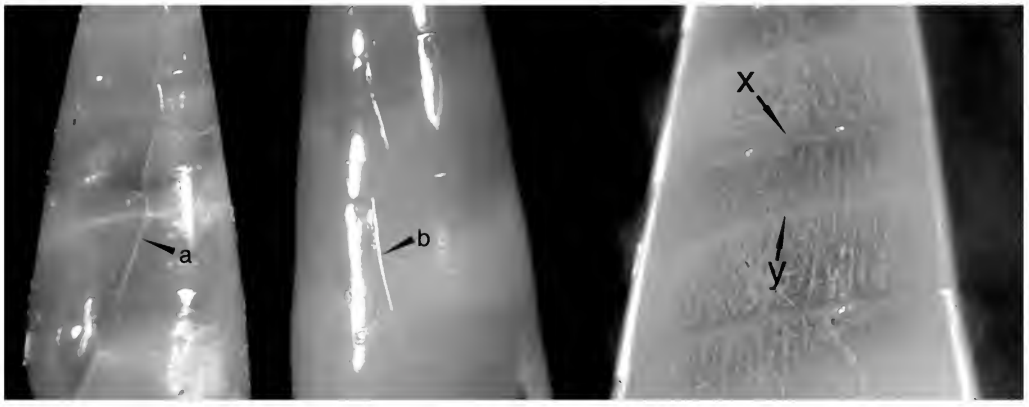

Figure 1 – Shell detail showing incremental growth scars (a & b), the suture line (x), and the false suture (y). a = vitreolina type; b = normal type

The periodic starts and stops of shell growth spurts are marked by axial lines or scars where the outer aperture has thickened between spurts. There are three types of scars (Fig. 1). First is the normal type in which the scar is straight or slightly curved. The second is the vitreolina type which resembles an uneven sinusoidal curve that dips at the false suture. Lastly there is the sabinella type which is a convex curve (not pictured here).

The overall shell curvature can be diagnostic between species but is considered by Bouchet and Warén (1986) to be of no taxonomic significance for higher classifications, i.e., genera. They contend that the curvature is a growth phenomenon caused by an alignment of

Eulimids are typically characterized as being, at least part time, ectoparasites on echinoderms. There are also a few internal parasitic forms. The hosts of many species are not known (Table 1). Some species spend only part of their life history on a host (Warén, 1984). The ectoparasitic forms mostly feed by means of a proboscis inserted into the host. For a more detailed description of the form and function of the proboscis see Smith, 1984. A radula is present in only a few genera, e.g., *Niso* and *Eulima*.

In general, a given genus of eulimid is restricted to a single class of echinoderm. *Vitreolina* is a notable exception. There is little information regarding host specificity at the

species level in the literature. Our research produced some additional host information about our local fauna (Table 2). Based on the assumption that the animals found loose in the sample had left the host at time of collection, an attempt was made to correlate CSD infauna abundance data for Eulimidae with non-ophiuroid echinoderm data. The preliminary result showed no discernable pattern. Not enough is known, in general, about the life history of the local fauna.

Material was reviewed from City of San Diego (CSD), Los Angeles County Sanitation District (CSDLAC), The City of Los Angeles (CLAEMD), The Hertz Collection (HC), The City and County of San Francisco (CCSF), and Los Angeles County Museum of Natural History (LACMNH). The subsequent data was presented at the April 14 SCAMIT meeting. Below is a species by species synopsis of the results.

Balcis berryi – Only one broken specimen identified by Hank Chaney (SBMNH) in the CSD's SCBPP '94 collection. No change. LACMNH lots are an apparent mix of species. The type is figured in Bartsch, 1917 (as *Melanella berryi*, Plate 42, fig. 3)

Balcis compacta – Not reviewed by authors. No SCAMIT members present have reported this species. The origin of the record in SCAMIT (2001) species list is still unknown. No museum specimens were available for review. Bartsch (1917) figured Carpenter's type (as *Melanella compacta*, Plate 37, fig. 3).

Balcis micans – This remains a valid record for the SCAMIT species list (Plate 1 fig. C &D). However, records from CSD laboratory were misidentified. CSD records of *B. micans* (Plate 1 fig A & B) were discovered to be *Melanella rosa* Willett, 1944 (see cover photo of the holotype). Two individuals of this species were found in LACSD material misidentified as both *Polygireulima rutila* and *B. micans*.

Balcis oldroydae – The initial confusion about this species stems from the specimen illustrated by McLean (1996, fig. 1.13D). He appears to confuse the more rounded body whorl form with the more angled form described by Bartsch and recognized by SCAMIT members (Plate 2, fig. C & D). This, coupled with his inclusion of *Melanella micans borealis* (Bartsch, 1917 Plate 35, fig. 7) as a junior synonym of *B. oldroydae,* has created uncertainty as to the true diagnosis for this species. Until this apparent inconsistency can be clarified, it was decided to follow Bartsch's (1917, Plate 36, fig. 5, 6 & 7) original description, not McLean's re-description.

Balcis sp A – See the voucher sheet in this issue.

Eulima almo – No specimens from SCAMIT members were available for review. One specimen lot was found in the LACMNH and images were shown to SCAMIT members. They were all in agreement that we had not seen this species as represented by the Museum's specimen. It is believed to be a problem of nomenclature in the SCAMIT species list. John Ljubenkov confirmed that all his records of *E. almo* were changed to *E. raymondi* (personal communication June 6, 2003). For an illustration of the type see Bartsch, 1917(as *Strombiformis almo*, Plate 46, fig. 5).

Eulima raymondi – Not reviewed here.

Polygireulima rutila – No change. Since it is known that this species co-occurs with *B. oldroydae* loose in the sample and on the same host (Table 2) it was theorized that shell differences might be due to sexual dimorphism (Plate 2, fig. A – D). The research did not reveal convincing evidence to support this hypothesis.

Pseudosabinella bakeri – Not reviewed by authors.

Vitreolina columbiana – No change as reported by CSD and CLAEMD. (Plate 3, fig. A & B)

Vitreolina macra – No change as reported by CSD. (Plate 3, fig. C & D)

Vitreolina yod – No change as reported by CSD. (Plate 3, fig. E)

Balcis sp. SD1/*Balcis* sp. SD2 – These specimens are being carried as CSD in-house provisionals until more material can be found. For illustrations see the SCAMIT voucher sheet for *Balcis* sp A (Fig. 2) in this issue.

?*Nanobalcis* sp. – This would be the first record of this genus from the eastern Pacific (Fig. 2). The only known North American species, *Nanobalcis worsfoldi* Warén, 1990, was reported from the Caribbean and southwest Florida (Turgeon et al, 1998). There are three described species, world wide. It is a relatively small genus, maximum length about 3 mm, and is known to parasitize cidaroid sea urchins (Warén and Mifsud, 1990). Morris et al (1980) reports the only know locally occurring cidaroid is *Eucidaris thouarsii*. The sediment at the collecting site was composed of coarse sand and shell hash.

We would like to express our thanks to Jim McLean and Lindsey Groves of LACMNH for all their help. Also, thanks to Don Cadien for reviewing the manuscript.

Figure 2 – ?*Nanobalcis* sp, CSD ITP Reg. 2772(2), 24JUL02, 56m. Scale bar = 1mm

POLYCHAETE VOUCHER SHEET

Tom Parker (CSDLAC) has been busy again and we've included his voucher sheet of *Arabella endonata* at the back of the newsletter. Don't miss it.

NEW MEMBERSHIP FORM

The SCAMIT membership form has been updated and is available in a downloadable PDF format on our website.

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Please visit the SCAMIT Website at: **http://www.scamit.org**

SCAMIT OFFICERS:

If you need any other information concerning SCAMIT please feel free to contact any of the officers at their e-mail addresses:

President	Kelvin Barwick	(619)758-2337	kbarwick@sandiego.gov
Vice-President	Leslie Harris	(213)763-3234	lharris@nhm.org
Secretary	Megan Lilly	(619)758-2336	mlilly@sandiego.gov
Treasurer	Cheryl Brantley	(310)830-2400x5500	cbrantley@lacsd.org

Back issues of the newsletter are available. Prices are as follows:

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The SCAMIT newsletter is published monthly and is distributed freely through the web site at www.scamit.org. Membership is $15 for the electronic copy available via the web site and $30 to receive a printed copy via USPS. Institutional membership, which includes a mailed printed copy, is $60. All new members receive a printed copy of the most current edition of "A Taxonomic Listing of Soft Bottom Macro- and Megainvertebrates … in the Southern California Bight." The current edition, the fourth, contains 2,067 species with partial synonyms. All correspondences can be sent to the Secretary at the email address above or to:

SCAMIT
C/O The Natural History Museum, Invertebrate Zoology
attn: Leslie Harris
900 Exposition Boulevard
Los Angeles, California, 90007

Figure A - **B** *Melanella rosa,* CSD Sta.A13(3), 5OCT92, 158 ft.; **C** - **D** *Balcis micans*; **C** CSD Sta. I18(2), 4JAN02, 19m; **D** LACSD Sta. E-40, 41 m, Nov. 1997. Scale bar = 1mm

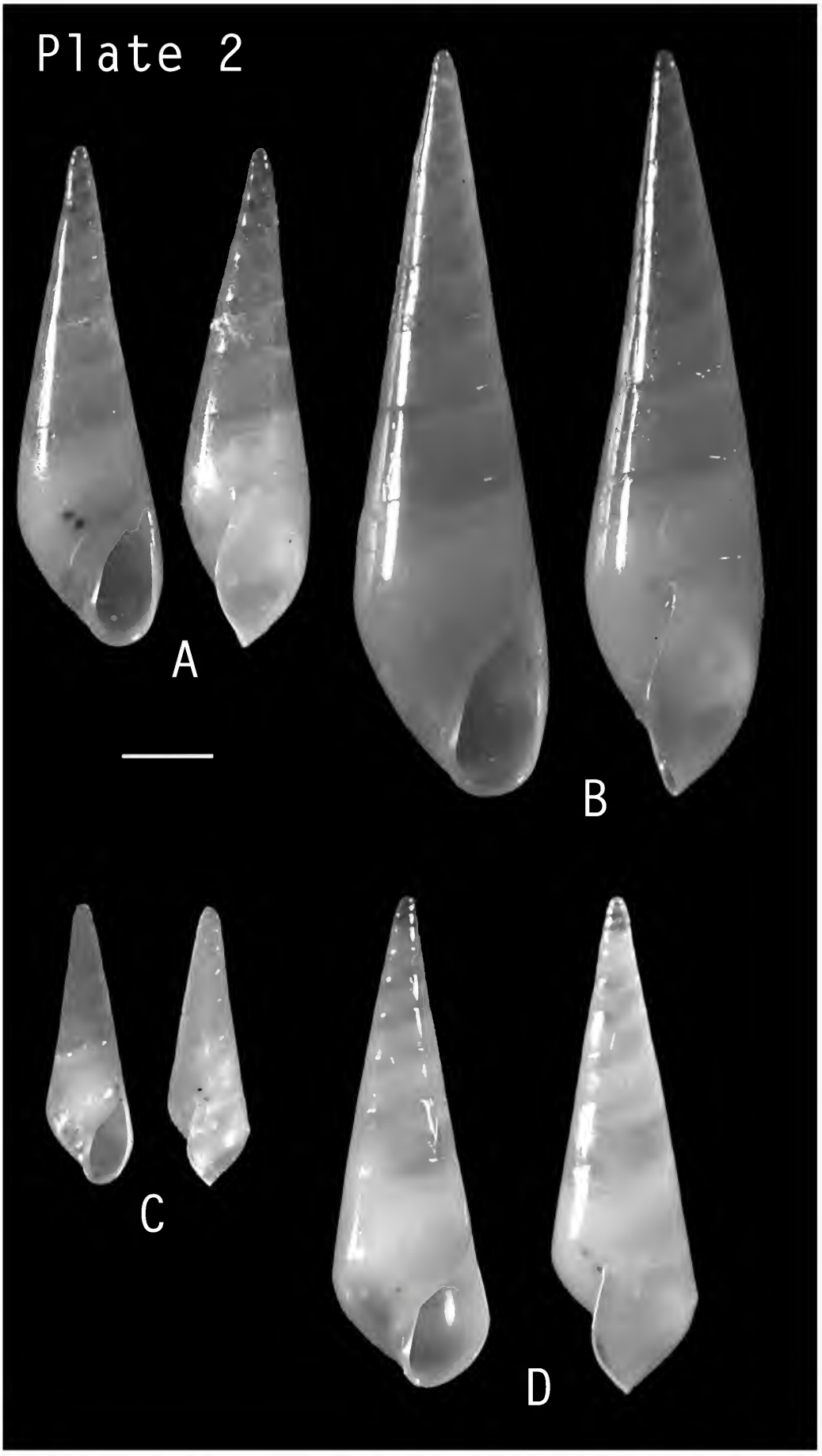


Figure A - **B** *Polygireulima rutila*; **C** - **D** *Balcis oldroydae*; CSD station SD18, 11APR03, 31m. All removed from a single specimen of *Pisaster brevispinus.* Scale bar = 1mm

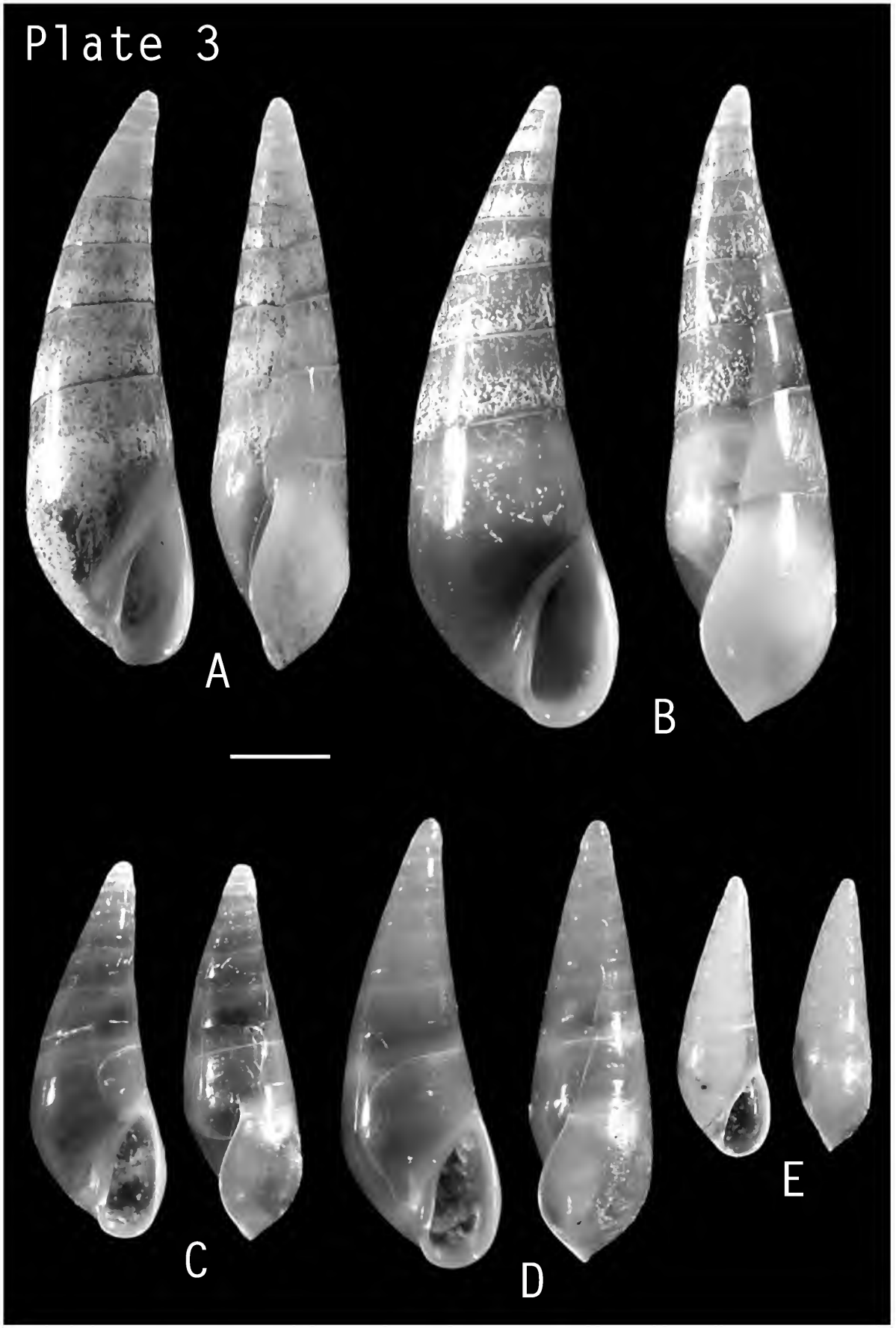


Figure A - **B** *Vitreolina columbiana*; **A** CSD Sta. E9(2), 7/2/01, 380 ft.; **B** CLA Sta. A1 Santa Monica Bay, 16m, 3JULy02 **C** - **D** *Vitreolina macra,* CSD voucher # M-176; **C** CSD Sta. ITP 2755(2), 7-9-01, 98 ft.; **D** CSD Sta. ITP 2685(1), 7-28-99, 398 ft.; **E** *Vitreolina yod*, CSD Sta. ITP Reg. 2655 26JUL99, 89 ft.Scale bar = 1mm

Table 1 - Literature reports of southern California Eulimidae; information from describer except where indicated by footnotes

Species	SCAMIT Ed. 4	Geographic Range	Depth Range	Shell Length (mm)	Shell Width (mm)	# Whorls	Host
Balcis berryi (Bartsch, 1917)	√	Del Monte, Monterey; Catalina Island, California	12 fm	6	2	12	
Balcis compacta (Carpenter, 1864)	√	San Pedro, California; Punta Abreojos, Lower California[1]		6. 8 6.7[2]	2.2[1] 2.45[2]	+ 8[1]	
Balcis micans (Carpenter, 1864)	√	Kodiak Island, Alaska to Punta Abreojos, Baja California Sur[3]	30 – 100 m[3]	9.5 – 12.5[1] 10 – 13[3]	3 – 4[1] > 3[3]	Up to 15[3]	Holothuroidea? [3]
Balcis oldroydae (Bartsch, 1917)	√	Kamchemak Bay, Alaska to Isla Cedros, Baja California[3]		9.2	3	14	
Eulima almo (Bartsch, 1917)	√	Santa Rosa Island to San Diego, California	53 – 113 fm	7	1.8	10	
Eulima raymondi Rivers, 1904	√	Monterey Bay, California to Bahía Guatulco, Oaxaca, Mexico[3]	40 – 100 m[3]	to 12[3] 7.8 – 12[11]	1.3 – 2.5[11]	+ 10 – 13[11]	
Haliella abyssicola Bartsch, 1917		Off Columbia River, Oregon to Punta San Pablo, Baja California Sur[3]	400 – 1500 m[3]	10.4 11[3]	2.9	10	
Haliella loman Dall 1908		"16 miles off Point Loma Light, California" [1]	642 – 650 fm[1]	20.2[1]	7[1]	+9[1]	
Hypermastus randolphi (Vanatta, 1899)		Alaska to California[4]	0 – 55 m[4]	6[2] 6.2 - 7[12]	2.3[2] 2.3 – 2.6[12]	8 – 9[4]	*Dendraster excentricus*? [4]
Melanella californica Bartsch, 1917		Catalina Island, California		6.2	2.3	8	
Melanella lastra Bartsch, 1917		San Pedro, California to Magdalena Bay, Lower California	"Deep water off stones"	2.6 – 4.1	1 – 1.6	9 – 10	
Melanella peninsularis Bartsch, 1917		San Diego, California to Magdalena Bay, Lower California		5.2	2.2	11	"On *Haliotis*"
Melanella thersites Carpenter, 1864		Monterey, California to Point Abreojos, Lower California[1]	3 – 13 fm - deep water[1]	5.9 – 6.85 [13]	2.16 – 2.6[13]	12[1]	"on a starfish" [2]
Melanella hemphilli Bartsch, 1917		San Diego, California to Bahia Magdalena, Point Abreojos, Lower California	Intertidal	8.3	3	10	
Melanella rosa Willett, 1944		Redondo, California	125 fm	11	2.5		
Niso attilioi (Hertz & Hertz, 1982)		South of La Jolla Trench, off San Diego California	90 – 140 m	7.57 – 8.9	3.08 – 3.17	10.5	
Niso lomana Bartsch, 1917		Santa Rosa Island and Point Loma, California[1] Cedros Island, Baja California to Angel de la Guarda and Tiburon Islands, Gulf of California[6]	48, 71 - 75 fm 9 – 175 m[6] (183) m[7]	14.5 broken 20[6]	9[6]		
Polygireulima rutila (Carpenter, 1864)	√	Monterey Peninsula, California to Bahía Magdalena, Baja California Sur[3] Gulf of Georgia, B.C., Canada to Magdalena, Baja California[1]	7 – 350 fm[1] 10 - 400 m[3]	6.8[1] 6 – 8[3]	1.9[1]	13[1]	Asteroids[1, 3] holothuroids[8]
Pseudosabinella bakeri (Bartsch, 1917)	√	Carmel Monterey, California to Isla Cedros, Baja California[3]	10 – 150 m[3]	3 – 6[3] 2.7	1.1	9	
Subniso hipolitensi (Bartsch, 1917)		San Diego, California to San Hipolito Point; San Diego, California to Los Angeles Bay, Baja California[9]	2 – 30 m[10]	3.1[1] to 4.5[10]	1.2	10	
Vitreolina columbiana (Bartsch, 1917)	√	Attu, Aleutian Islands, Alaska to Isla Cedros, Baja California[3]	50 m or less[3]	8 – 9.5 6 – 9.5[3]	2.6 – 3	15[3] 12 - 15	*Cucumaria* sp.[3]
Vitreolina macra (Bartsch, 1917)	√	Kamchemak Bay, Alaska to Mazatlan, Mexico[3]	48 fm[22] 20 – 100 m[3]	5.2 – 7.5[11] 6 – 7.5[3]	1.9 - 2.6[11]	11 – 13[11] 13[3]	*Brandtothuria arenicola*[5]
Vitreolina yod (Carpenter, 1857)	√	Santa Maria Basin to Mazatlán, Sinaloa, Mexico[3]	20 – 400 m[3]	2 – 3[3] 1.4 – 3.4[14]		8[3]	

[1] Bartsch, 1917; [2] Vanatta, 1899; [3] McLean, 1996; [4] Warén & Crossland, 1991; [5] Brand & Muniz Ley, 1980; [6] Keen, 1971; [7] Skoglund, 2002; [8] Morris, 1966; [9] Emerson, 1965; [10] Hertz & Hertz, 1982 [11] from species described in Bartsch (1917) synonomized by McLean, 1996. [12] From species described in Bartsch (1917) synonomized by Warén and Crossland, 1991. [13] From species described in Vamatta (1899) synonomized by Bartsch, 1917. [14] Myers, et.al., 2001.

Table 2 – Shell characters for selected species of Eulimidae reported by SCAMIT participants

Species	n	Shell Length (mm) mean ± s. dev.	Maximum shell diameter (mm) mean ± s. dev.	No. of whorls	Outer lip shape	Incremental scar type[1]	Depth range (m)	Agency/Collections represented[3]	Host reported by participating SCAMIT members
Balcis micans	4	6.6 ± 1.6	2.2 ± 0.5	9 – 11	sinuous	vitreolina	19 - 48	CSD, LACSD, CCSF	Unknown
Balcis oldroydae	16	3.9 ± 0.8	1.2 ± 0.2	7 - 10	sinuous	vitreolina	18 - 201	CSD, LACSD, HC,	*Lovenia cordiformis*[2] *Pycnopodia helianthoides*[2] *Pisaster brevispinus*[2] *Allocentrotus fragilis* *Dendraster excentricus*[2,4]
Balcis sp A	2	5.4 ± 0.6	2.0 ± 0.1	9	sinuous	vitreolina	41 – 45	LACSD, CLAEMD	Unknown
Balcis sp SD1	1	5.1 ± na	1.9 ± na	10	sinuous	normal	55	CSD	Unknown
Balcis sp SD2	1	6.6 ± na	2.3 ± na	11	sinuous	normal	14	CSD	Unknown
Melanella rosa	14	5.8 ± 1.5	1.6 ± 0.3	7 – 11	evenly curved	normal	18 -119	CSD, LACSD	Unknown
?*Nanobalcis* sp	1	2.9 ± na	1.2 ± na	8	slightly sinuous	normal?	56	CSD	Unknown
Polygireulima rutila	46	5.4 ± 0.9	1.5 ± 0.2	8 – 11	sinuous	vitreolina	16 – 201	CSD, LACSD, HC, CCSF	*Lovenia cordiformis*[2] *Astropecten verrilli* *Pycnopodia helianthoides*[2] *Allocentrotus fragilis* *Parastichopus californicus* *Pisaster brevispinus*[2] *Dendraster excentricus*[2,4]
Vitreolina columbiana	2	5.6 ± 0.3	1.8 ± 0.2	9 – 10	sinuous	vitreolina	16, 109 - 129	CSD, CLAEMD	Unknown
Vitreolina macra	12	4.4 ± 0.8	1.4 ± 0.2	6 – 9	sinuous	vitreolina	29 - 121	CSD	Unknown
Vitreolina yod	4	2.4 ± 0.4	0.8 ± 0.1	6 – 7	sinuous	vitreolina	27 - 30	CSD	Unknown

[1] after Bouchet and Waren, 1986

[2] *B. oldroydae* and *P. rutila* found together on individual specimens

[3] Material was reviewed from City of San Diego (CSD), Los Angeles County Sanitation District (LACSD), The City of Los Angeles (CLAEMD), The Hertz Collection (HC), and The City and County of San Francisco (CCSF)

[4] Host record from the Hertz Collection.

SCAMIT Voucher Sheet

Species: *Balcis* sp A
Group: Eulimidae (Gastropoda: Mollusca) Vol. 22, No. 2

Date examined: 13 June 2003
Vouchered by: K. Barwick & S. Douglass

Material Examined: 1 spm: LACSD Sta. E-40, Nov-97, 41 m
1 spm: CLAEMD Sta. B10 Santa Monica Bay, 25JAN93, 45 m, # 319

Description: The smooth conical shell is shiny, translucent, and without color. The body whorl is acutely angled. The teleconch has incremental growth scars of the vitreolina type. The outer edge of the oval aperture, when viewed from the side is strongly sinuous. The most projecting part of the outer edge is below the mid-point between the suture line and the base of the shell. A thin callus is present on the columella. The shell length is: 5.0 – 5.8 mm, the diameter is: 1.9 – 2.1 mm, and has 9 – 10 mostly flat sided whorls, see figure 1. The host is unknown.

Related Species: The angled body whorl of *Balcis* sp A gives it a superficial resemblance to *Balcis oldroydae*. *B.* sp A has a much broader base with a more acute angle to the body whorl. For a given number of whorls *B.* sp A has a generally larger shell. *Balcis* sp SD1 and *Balcis* sp SD2 are similar in form to *B.* sp A. *B.* sp A differs from the *B.* sp SD2 in the shape of the outer lip (figure 2B). In addition to the outer lip shape, *B.* sp SD1 also has a more acute angel to the body whorl (figure 2A). *B.* sp SD1 more closely resembles the fossil *Melanella monicensis* Bartsch, 1917 (plate 36, fig. 2)

Distribution: Known only from material examined: Palos Verdes Peninsula and Santa Monica Bay, California.

Comments: Due to the relatively few specimens available, the variability of certain characters, i.e., the outer lip shape, can not be determined. *Balics* sp SD1 was not included in this diagnosis due, in large part, to the differences in this feature. Until more material can be examined, a relatively narrow diagnosis has been adopted for *Balcis*. sp A. The generic placement of this species is based on McLean's (1996) diagnosis.

Literature: McLean, J. H. 1996. Chapter 1. The Prosobranchia. Pp. 1-160 *in* Scott, P. H., J.A. Blake, and A.L. Lissner, eds. Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and the Western Santa Barbara Channel. Volume 9. The Mollusca Part 2 – The Gastropoda. Santa Barbara Museum of Natural History, Santa Barbara, California. 228 pp.

Bartsch, P. 1917. A monograph of west American melanellid mollusks. Proceedings of the United States National Museum 53: 295-356.

Figure 1 – *Balcis* sp A, LACSD Sta. E-40, Nov. 97, 41mm. Scale bar = 1mm

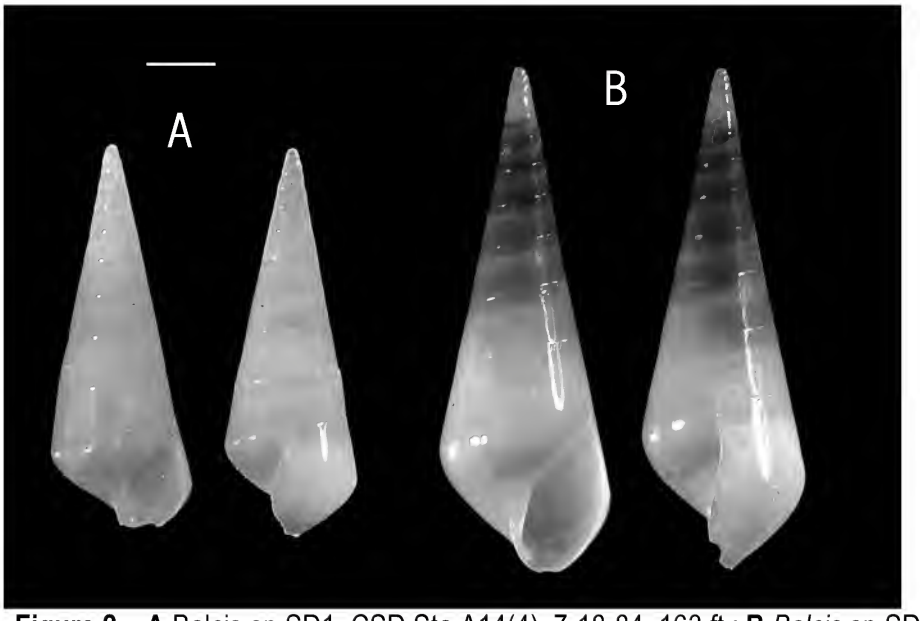


Figure 2 – **A** Balcis sp SD1, CSD Sta.A14(4), 7-18-84, 163 ft.; **B** *Balcis* sp SD2, Bight '98 Sta. 2515, 7-16-98, 14 m. Scale bar = 1mm

CSDLAC specimens 0702-8C4 April 2003
Examined by T. Parker

Literature: Emerson, R. R. 1974. A new species of polychaetous annelid (Arabellidae) parasitic in *Diopatra ornata* (Onuphidae) from Southern California. Bull. So. Cal. Acad. Sci. (73) 1-5.

Hilbig, B. 1995. Chapter 12: Family Oenonidae Kinberg 1865. Emended Orensanz 1990. Taxonomic Atlas of the benthic fauna of the Santa Maria basin and western Santa Barbara channel. Vol. 5: pp. 315-327.

Synonymy: in part *Arabella* sp within Southern California Bight.
in part *Arabella iricolor* within Southern California Bight.

Diagnostic Characters:

1. Four small embedded "eye spots" at base of prostomium.
2. Maxillae 1 has evenly spaced dentate plate opposite a plate with wide gap between two largest teeth (Figure 1).
3. Two acicula per parapodium.

Related Species and Differences:

Arabella iricolor maxilla 1 with simple falcate tips on both sides, each strongly curved inward. Dentition larger sized on one side (Fig. 4). 2-4 acicula.

Arabella semimaculata maxilla 1 with simple falcate tips wider and less pointed. Dentition smaller and more evenly sized (Fig. 2). 4-6 acicula.

Arabella protomutans maxilla 1 with falcate tips asymmetrical with accessory secondary tooth (Fig. 5). Acicula number unknown.

Arabella pectinata maxilla 1 with falcate tips asymmetrical, with one split into bifid structure. Bifid tip maxilla with larger and longer series of denticles (Fig. 3). Acicula number unknown.

Distribution: Southern California coastal bottoms from intertidal to 137 meters.

Illustrations after Emerson 1974 & Hilbig 1995

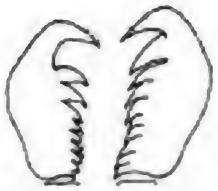


Figure 1. maxilla 1. *A. endonata*

Figure 2. maxilla 1: *A. semimaculata*

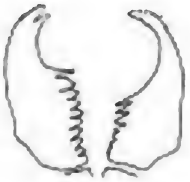


Figure 3. maxilla 1: *A. pectinata*

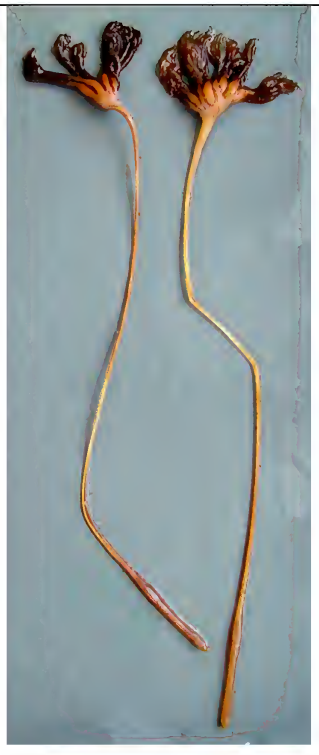
Figure 4. maxilla 1: *A. iricolor*

Figure 5. maxilla 1: *A. protomutans*

Southern California Association of
Marine Invertebrate Taxonomists

July, 2003 **SCAMIT Newsletter** Vol. 22, No. 3

SUBJECT:	**B'03 Polychaetes Continued**
GUEST SPEAKER:	**None**
DATE:	**27 October 2003**
TIME:	**9:30 a.m. to 3:30 p. m.**
LOCATION:	**Los Angeles County Museum of Natural History** **900 Exposition Blvd.**



Ombellula magniflora Kölliker 1880

JULY MINUTES

The meeting began a few hours late due to the unfortunate coincidence of there being a hazardous materials spill that morning on the road leading to Dancing Coyote Ranch. Everybody had finally gathered by a little after 11:00 a.m. and we instantly dove into the business of Cnidaria.

We started by looking at pictures and specimens of *Stephanauge annularis*. A small, pinkish anemone often found in the basins at 400- 500m depths. It is usually seen wrapped around trash, sea pens, or any other hard substrate. It uses its incredibly flexible pedal disk to anchor itself by wrapping its edges, often times completely around, the object. It is characterized by large white bumps at the top of the column which John informed us is characteristic of the family Hormathiidae to which this species belongs.

The SCAMIT Newsletter is not deemed to be a valid publication for formal taxonomic purposes.

John then showed us a big, lumpy, bumpy, white anemone (for lack of a better description) known as *Actinostola* sp. It was barrel shaped and had many tentacles with the largest in the center and getting smaller as you traveled distally. They were reddish or purple in life and looked dark in preservation. It was found in 450m of water. John warned us that the drawing in the Cnidaria volume of the MMS Atlas, wasn't quite accurate and not to rely on it for identifying this species.

Next we viewed photos of *Ombellula magniflora*. A beautiful sea pen being found relatively frequently in the deep intercalibration trawls. A specimen was also available for examination. It is reminiscent of a large flower, with a bare stalk and a large, flower-like apex where the polyps are clustered (cover photo).

Halipteris californicus was viewed next. It is a large sea pen with many polyps covering the rachis. In life the polyps are purplish and the peduncle has a distinctive yellowish tinge. The large and impressive ophiuroid, *Asteronyx longifissus* is often seen wrapped around its tip. There are good images of this animal in the the MMS Atlas. It was at this point that John reminded us that the Cnidaria volume is a great reference source for deeper water sea pens.

The impressive pen, *Pennatula californica* was examined. We were informed that it is common in deeper water. The reddish color comes from the spicules and therefore doesn't fade quickly upon preservation. The polyps are individual attachments to the rachis instead of being organized into leaves. Refer to the MMS Atlas Cnidaria volume for more information and images.

Another species of sea pen which has individually inserted polyps, versus having them organized in leaves, is *Anthoptilum grandiflorum*. It has a distinctive swelling at the base which is also well-represented in the Atlas drawings.

The last of the sea pens was a nice, large specimen of *Ptilosarcus gurneyi*. It is found from 3m (in its northern range) to 135m.

A bizarre benthic siphonophore, *Dromalia alexandri*, was viewed next. It is in the family Rhodaliidae. Tony Phillips (CLAEMD) had brought some nice digital photos of it live and there was a specimen present for viewing. John explained that the animal has long "tendrils" which are specifically designed for anchoring it in the sand and it then hovers just above the bottom catching small food items.

We next looked at corals that might be encountered. The first was *Desmophyllum dianthus*. The primary septa are extremely long and distinctive. It is obviously associated with hard bottom substrates. When alive it is orange in color and often looks like an anemone since the septa are obscured by living tissue.

Two good references for many of the corals in our area are Bythell 1986 and Cairns 1994.

An interesting looking coral that was passed around for viewing was *Lophelia pertusa*. It is often associated with rocky or hard substrate over-hangs.

Also seen is *Coenocyanthus bowersi* which has a distinctive branching pattern. It is found from 20-250m and is pinkish in life.

Next we viewed a specimen of *Paracyathus stearnsii*, which was small and brownish with a thick base. It was similar to *Desmophyllum* but the primary septa were not nearly as large. See Bythell 1986, for comparative photos.

We also saw a specimen of *Balanophyllia elegans* which John informed us would be yellow/orange in life.

A strange looking octocoral, *Telesto californica* will be found mixed in with our more common *Thesea*. For nice drawings of *Telesto* see the Cnidaria volume of the MMS Atlas.

We took a quick break from Cnidaria to look at a few deep water mollusks that John had come across in some of his consulting work. He showed us a gastropod that was vaguely reminiscent of a *Calliostoma* but was obviously not. It turned out to be *Cidarina cidaris* which can be seen in the Mollusk volume of the MMS Atlas on page 31.

Then returning to Cnidaria we started looking at Gorgonians. *Swiftia* was the first to be examined. One of its distinctive features was that the polyps were oppositely arranged. It is red in life and lives on the upper slope.

We then got into a discussion regarding the term "oppositely arranged" with regards to polyps. Upon examination of the *Swiftia* specimen many members thought they saw polyps which were arranged alternately, in other words, not directly across from one another on the rachis, but rather, slightly staggered in their insertion. John agreed that was the case, but he pointed us to the tips of the branches and there we saw instances of the polyps being oppositely arranged, i.e., directly across from one another on the rachis. John's explanation was that in species described as having opposite arrangement, there will be both alternate and opposite arrangement of polyps, with the opposite pattern most common near the tips of the branches. Whereas, in a species defined as having alternate arrangement, you will never see any opposite arrangement of the polyps.

The mysterious and rare *Thesea* sp A was briefly discussed. It has only been seen by John and Don Cadien (LACSD), and then, only once. It is similar to *Thesea* sp B except that it is very, large, ("as thick as a pencil") according to Don, and is white in color with heavy spicules.

Another prostrate Gorgonian is *Heterogorgia tortuosa*. It is relatively distinctive looking in that it has polyps which appear bilabiate and have slit-like openings at the mouth. This is in comparison to *Thesea*, which has 8-way spicules in a chevron pattern surrounding a round opening at the mouth of the polyp. Another distinctive feature of *Heterogorgia* is the polyps are arranged in two rows opposite from one another on the stem and it is whitish in life. *Thesea* has the polyps arranged randomly around the stem and is usually a dirty yellow or grey.

Although our day was short, it was extremely productive and, I, for one, left with much greater confidence in regards to identifying many of the deeper water Cnidaria that we may encounter.

I have included in the bibliography a listing of Cnidaria literature that John sent and which is originally found in Straughan and Klink 1980. John cautioned that the list is older; he is working on updates and will eventually compile a new version.

REVISED SCAMIT CONSTITUION

At the end of the newsletter there is a revised copy of SCAMIT's constitution. A vote of the membership is necessary in order for the changes to be ratified. The last page contains the official ballot, which must be returned by 31 December 2003. Please take a moment to review the changes and cast your vote. We would like to extend a special thanks to Tom Parker (CSDLAC) for bringing it to the officers' attention that the constitution was in need of updating and for making the initial revisions.

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Please visit the SCAMIT Website at: **http://www.scamit.org**

SCAMIT OFFICERS:

If you need any other information concerning SCAMIT please feel free to contact any of the officers at their e-mail addresses:

President	Kelvin Barwick	(619)758-2337	kbarwick@sandiego.gov
Vice-President	Leslie Harris	(213)763-3234	lharris@nhm.org
Secretary	Megan Lilly	(619)758-2336	mlilly@sandiego.gov
Treasurer	Cheryl Brantley	(310)830-2400x5500	cbrantley@lacsd.org

Back issues of the newsletter are available. Prices are as follows:

Volumes 1 - 4 (compilation)	$ 30.00
Volumes 5 - 7 (compilation)	$ 15.00
Volumes 8 - 15	$ 20.00/vol.

Single back issues are also available at cost.

The SCAMIT newsletter is published monthly and is distributed freely through the web site at www.scamit.org. Membership is $15 for the electronic copy available via the web site and $30 to receive a printed copy via USPS. Institutional membership, which includes a mailed printed copy, is $60. All new members receive a printed copy of the most current edition of "A Taxonomic Listing of Soft Bottom Macro- and Megainvertebrates … in the Southern California Bight." The current edition, the fourth, contains 2,067 species with partial synonyms. All correspondences can be sent to the Secretary at the email address above or to:

SCAMIT
C/O The Natural History Museum, Invertebrate Zoology
attn: Leslie Harris
900 Exposition Boulevard
Los Angeles, California, 90007

BALLOT FOR PROPOSED CHANGES TO SCAMIT CONSTITUTION.

SOUTHERN CALIFORNIA ASSOCIATION OF MARINE INVERTEBRATE TAXONOMISTS (SCAMIT) CONSTITUTION

Preamble

In view of the diversity of marine invertebrates in the Southern California area and the many organizations studying the ecology of these organisms, the Southern California Association of Marine Invertebrate Taxonomists was organized by scientists who recognized the need to standardize systematic practices and taxonomic usage through a program of inter-calibration. On April 21, 1982, the Association was founded and a Constitutional Committee was formed to establish a working framework. This Constitution is the result of the Committee's activities.

Article 1: Name

The organization shall be the Southern California Association of Marine Invertebrate Taxonomists (SCAMIT).

Article 2: Purpose

The purpose of the Association shall be to develop standard procedures in systematic practices and taxonomic usage for marine invertebrates in the Southern California region. This will be accomplished primarily through an inter-calibration program and the exchange of information among persons interested in marine invertebrate taxonomy. This will include specimen exchange and confirmation, literature exchange, the periodic publication and distribution of standardized taxonomic listings, support for taxonomic quality control efforts, and financial support of taxonomic publication ~~the development of an inter-calibrated reference collection housed at a designated institution,~~ and guest lecturers. SCAMIT will also own and operate an Internet website to further these purposes.

Article 3: Membership

Section 1: Membership

Membership in the Association is open to individuals or institutions interested in the systematics and ecology of marine invertebrates. Membership can be obtained upon written application to the Treasurer with an accompanying payment of dues.

Section 2: Types of Members

Only Charter, Individual, Institutional, and Honorary members are recognized.

Section 3: Rights of Membership

Honorary life members and all other members whose dues have been paid for the current year shall be considered members in good standing and shall be entitled to receive notices of the Association's activities, vote at meetings or by mail, and participate in any activities sponsored by the Association.

Article 4: Dues

Dues shall be fifteen dollars ($15.00) annually with electronic format newsletter, thirty dollars ($30.00) per year with mailed paper newsletter format, and sixty dollars ($60.00) per year for institutional members. Dues are collected during the month of May for all members. ~~for individual members and sixty dollars ($60.00) annually for institutional members.~~

Article 5: Officers

Section 1: Officers

The elected officers of the Association shall be the President, Vice-President, Secretary, and Treasurer.

Section 2: Term of Officers

All elected officers shall be elected by a simple majority vote of the members voting in the election. Officers may hold the same office for an unlimited number of terms. Newly elected officers shall assume the responsibilities of their office in April and continue through March of the following year.

Section 3: Election of Officers

Request for nominations will be entertained in the December newsletter and at the January meeting. Election shall be by means of a ~~mail~~ ballot sent out in the February newsletter. ~~in the January newsletter~~. Ballots shall be sent to members in good standing. Results of the election will be announced in the ~~March~~ newsletter.

Article 6: Meetings

The Association shall normally meet on the second Monday of every month. The President may change the date, venue, or content of a scheduled meeting if conditions arise to warrant such changes.

Article 7: Limitations

The purpose of the Association is listed in Article 2 of the Constitution. Lobbying, or any activities specifically designed to influence legislation, support political groups, or advance popular, political, scientific, or religious causes are not among the objectives of the Association and neither the Association nor any official group within the Association, or officer identifying themselves as such, shall engage in such activity.

Article 8: General Prohibitions

Notwithstanding any provision of the Constitution or Bylaws which might be susceptible to a contrary construction:

a) The Association shall be organized exclusively for scientific and educational purposes;
b) The Association shall not participate in, or intervene in political campaigns on behalf of any candidate for public office (including the publishing or distributing of statements);

c) The Association shall not be organized or operated for profit;

d) The property of this Association is irrevocably dedicated to scientific and educational purposes and no part of the net income or assets of this Association shall ever inure to the benefit of any officer or member thereof or to the benefit of any private person. Upon the dissolution or winding up of the Association, its assets remaining after payment, or provision for payment, of all debts and liabilities of this corporation shall be distributed to a nonprofit fund, foundation, or corporation which is organized and operated exclusively for scientific and educational purposes and which has established its tax exempt status under Section 501 (c) (3) of the Internal Revenue Code;

e) At no time shall the Association use its funds to hire Employees or acquire any real property. In the event the Association pays for professional or labor services to further its educational and scientific purpose, it shall be done on a contract or fee-for-service basis.

Article 9: Amendments

This Constitution may be amended by a two-thirds (2/3) majority of those voting at any meeting of the Association or in a mail ballot. In either case, notice of the proposed action will be sent to each voting member of the Association by the Secretary. ~~at least sixty (60) days before the date of the vote.~~

Article 10: Bylaws

The Association may enact Bylaws for interpretation and implementation of the Constitution. Bylaws may be adopted, amended, or repealed by a two-thirds (2/3) majority of those voting at any meeting of the Association or in a mail ballot. In either case, notice of the proposed action shall be sent to each voting member of the Association by the Secretary. ~~at least sixty (60) days before the date of the vote.~~

Article 11: Division

At the discretion of the officers, the Association may establish ad hoc committees to carry out activities under the overall sponsorship of the Association.

Article 12: Ownership

The acronym "SCAMIT", the Internet site listed as "<http//www.scamit.org>", the original art SCAMIT logos, and all other original items produced by the Association are copyrighted and protected by the Association under current copyright law. Items donated to the Association become its property and may be used or disposed of in accordance with the Association's purposes and goals.

BYLAWS

Bylaw 1: Types of Membership

The following types of members are recognized:

a) Charter - members who joined the Association between April 1982 and March 31, 1983.

b) Individual - Members who wish to be a part of the association and its activities.

c) Institutional - Organizations or groups who wish to be a part of the association and its activities.

d) Honorary Life - Membership awarded at the discretion of the executive committee in recognition of service to the association.

Bylaw 2: Duties of Officers

a) **President** - The president or designate shall preside at meetings of the Association, represent the Association's interest in external business affairs, ~~present a written yearly summary of the Association's activities to the membership~~, The President's name will be listed on the financial accounts. The President will have possession of the Association Constitution, and perform such other functions as may be defined in the Constitution and Bylaws.

b) **Vice-President** - The Vice-President shall chair ad hoc committees, be responsible for tabulating and disseminating results of elections, votes on Bylaws, and Amendments to the Constitution; ~~coordinate specimen exchange~~; arrange meetings and workshops; ~~coordinate the preparation of voucher sheets~~, ~~edit voucher sheets and newsletters;~~ and perform duties of the President during any period(s) when the President is unable to fulfill his or her duties as President of the Association.

c) **Secretary** - The Secretary or designate shall keep minutes for all meetings, produce the newsletter, issue notices for meetings, conduct the correspondence of the Association, and be responsible for ballot preparation. The Secretary will also keep a copy of the membership list.

d) **Treasurer** - The Treasurer shall collect dues, make necessary disbursements, keep the accounts of the association and monitor compliance with applicable federal and state laws and regulations. The Treasurer will present an annual summary of financial accounts in the newsletter. The Treasurer will inform the other officers of the current location of the Association's financial records. These accounts will be available for inspection by any elected officer upon request. All monetary funds of the Association are to be kept in FDIC insured accounts listing the Association name on the account title. The Treasurer's name will be listed on the financial accounts. The Treasurer will also maintain the current list of members in good standing and transmit a copy to the Secretary when the annual summary of accounts is produced.

Bylaw 3: Committees

a) An executive committee shall be formed, composed of each ~~elected~~ officer and will meet at least

once per year to discuss the Association's activities. This Committee is authorized to expend SCAMIT funds to further the association's goals. Special projects or activities requiring the expenditure of SCAMIT funds are approved by a majority vote of the Committee. All such special projects will be announced in the newsletter and posted on the SCAMIT Internet web site. The Executive Committee is authorized to engage in fund raising to support the Association's goals and purposes through the sale of SCAMIT identified items. The Committee may also direct the Association to apply for grants or contracts that will support SCAMIT's purposes listed in Article 2.~~and a single member from each committee and the liaison for the hosting organization. The function is to advise the officers on fund raising, expenditures of funds, and to insure the association's purpose is furthered. This executive committee will meet once each year with additional meetings scheduled as necessary by the president.~~

b) The officers shall create ad hoc committees of volunteer members as needed to further the purpose of the association.

OFFICIAL MAIL IN BALLOT

I have read and understand the proposed changes to the SCAMIT constitution and bylaws. As a member in good standing I

APPROVE / DISAPPROVE all said changes.
(circle one)

Detach and mail completed ballot to:

Leslie Harris, Vice-President
The Natural History Museum, Invertebrate Zoology
900 Exposition Boulevard
Los Angeles, California, 90007

Southern California Association of
Marine Invertebrate Taxonomists

August, 2003

SCAMIT Newsletter

Vol. 22, No. 4

SUBJECT:	**B'03 Ostracoda**
GUEST SPEAKER:	**none**
DATE:	**9 December 2003 (pending; double-check the SCAMIT website for final date)**
TIME:	**9:30 a.m. to 3:30 p. m.**
LOCATION:	**Los Angeles Museum of Natural History**

B'03 Station 4068, 182m, 22 July 03, CSD
Allocentrotus fragilis with a parasitic *Polygireulima rutila*
Photo an dID by K. Barwick

JULY MINUTES

The meeting began with SCAMIT business, the minutes of which have since been lost and therefore ignored here (if I ever find them, I will publish them in a future issue).

The speaker for the day was Megan Lilly (CSD) and she began the taxonomy portion of the meeting with a bit of information received via email from Rich Mooi (Cal Academy of Sciences). He warned that *Brisaster townsendi* is a valid species and may be the animal we are seeing in this area. However, according to Rich it is incredibly difficult to separate *B. towsendi* from *B. latifrons*. Megan will be looking into this further and will get back to the membership if she comes up with anything of interest. In the meantime, for the sake of data consistency, we shall continue to call our local species *Brisaster latifrons*.

The SCAMIT Newsletter is not deemed to be a valid publication for formal taxonomic purposes.

With that being said, we started with an overview of ophiuroid anatomy and the terminology problems that arise in the literature (disclaimer: the following paragraphs are Megan's working interpretation of the literature. They in no way represent a thorough examination, or a necessarily correct interpretation, of said literature).
For instance, it is easy to confuse the terms oral papillae and teeth. For the most part (this does not hold true for all the literature), "oral papillae" or "mouth papillae" refers to the structures on the lateral sides of the jaw. The term "teeth" (or "tooth papillae") refers to the structures at the apex of the jaw leading down into the mouth (or "up" as the case may be; since we are viewing animals from the ventrum, we are actually looking dorsally when we look "down" into the mouth).

One of the other confusions that arose was references to the number of papillae per jaw. For instance, in some publications the author(s) would refer to an animal such as *Amphiodia urtica* (for example) as having "three pairs of oral papillae", and in others, the condition would be described as "6 oral papillae present" (often with the "per jaw" phrase missing).

Descriptions of the genus *Amphiura* give another example of multiple terms for the same structure. The jaw is some times described as having a pair of buccal scales, other instances refer to these structures as "sub-apical" mouth papillae.
The distal most pair of papillae is often referred to as "modified tentacle scales" and in other instances, they are just referred to as distal papillae.

The list of various terminologies for the same anatomical structure depending on which publication one is using is quite long. You would be cautioned when reviewing the literature to keep in mind the inconsistencies in terminology over the years and be sure you have a handle of what that particular author is referring to when trying to use a key, etc.

In preparation for the B'03 samples, we proceeded to review actual specimens from deeper areas (or in some instances, very shallow), many of which Gordon Hendler (LACMNH) was kind enough to loan for the presentation.

(Some of the following minutes are lifted directly from Lisa Haney's (CSDLAC) notes; her assistance in this matter is greatly appreciated.)
The following are easily confused species or are species that we should be looking out for while doing identifications:

Amphipholis pugetana vs. *Amphipholis squamata*: *A. pugetana* has median arm spines that are noticeably longer and somewhat spatulate compared to the surrounding arm spines. *A. squamata* does not possess these spatulate-like spines. As a note of caution, these large, spatulate median arm spines are not always found on all five arms, but can be found on only one or two. They are usually about half way down the arm in terms of location and there can be only one or two of them per arm when they do occur (personal observations from the few specimens I have seen). For a more detailed discussion see Hendler 1996. As the species can be difficult to separate, especially in the juvenile stages, we all agreed that a 3mm disk diameter was the minimum to make a species identification, anything less would be considered *Amphipholis* sp.

Amphiura diomedeae vs. *Amphiura carchara*: These two species overlap in depth distribution and can be discerned by the number of tentacle scales that each possess. *A. diomedeae* has two and *A. carchara* only has one. Also, *A. carchara* has interbrachial spaces that are bare (no scales) on the oral side thus making it easily identifiable from other species. To separate *A. carchara* from *A. arcystata*, again look at tentacle scales with *arcystata* having two, but also look at arm spines. *A. carchara* has 3 arm spines and *arcystata* has 6-7. See Hendler 1996 for more information.

Ophiura sarsi vs. *Ophiura luetkenii* vs. *Ophiura leptoctenia*: *O. sarsi* has two rows of arm combs and two round disks as tentacle scales. *O. luetkenii* has only one row of rounded arm combs and only one round disk as a tentacle scale. *O. leptoctenia* has a single row of spiny arm combs and 2-3 spiniform tentacle scales. There is a warning in Nielsen 1932 in which he discusses small juveniles of *O. sarsi*. At small sizes (1.5-3mm) they may be lacking the second row (or both rows) of arm combs and can be mistaken for *O. luetkenii*. Also see Hendler 1996 for an excellent discussion of *O. luetkenii* and *O. leptoctenia*.

Two species which could be confused at first glance would be *Ophiosphalma jolliense* and *Ophiomusium lymani*. However, *O. jolliense* will have three pairs of proximal tentacle pores whereas *O. lymani* will only have two pairs (the character upon which generic level separation is based, Clark 1941). For good images of *O. jolliense* see Hendler 1996.

There was also some discussion on the validity of the genus *Ophiophthalmus* for the species *normani*. Lisa Haney was kind enough to contact Gordon Hendler with regards to this subject and came up with the following: *Ophiacantha* is not an appropriate generic name to associate with *normani*, but neither is *Ophiophthalmus* as it is currently serving as a generic name for a reptile. However, since no one has worked on this problem the name currently stands as *Ophiacantha normani*. As for differentiating *O. normani* from *O. diplasia*, I have not, by any extent of the imagination, done an exhaustive search of the literature, but was having some difficulty finding good descriptive differences between the two. Upon comparing the two species there were some gestalt type differences but I would urge anyone who thinks they have one species or the other to research the literature thoroughly. I will try in the near future to take some comparative photos and produce a sheet outlining the two species. For the moment I can say that the radial shields on *O. diplasia* were mostly obscured by granules, whereas those on *O. normani* were more obvious and less obscured by the superficial disk structures. In addition, on various sizes of *O. normani* there were 3-4 granules on the distal edges of the dorsal arm plates. In contrast, the granules did not seem to extend on to the dorsal arm plates of *O. diplasia* except for in the largest specimen examined (disk diameter approx 2 cm) and then there was only 1 granule seen on the distal edge of the plates (almost between successive plates). Comparative features, I know, but the best I can do for the moment. If anyone has better information please pass it along.

Amphichondrium laevis vs *A. granulatus*: These two species were compared at the meeting. The differences between the two can be subtle and are best described in Hendler 1996.

Ophiothrix rudis vs *Ophiothrix spiculata*: Depth range does overlap for the two species, but *O. rudis* only ventures from the intertidal to approximately 64m, whereas *O. spiculata* has been recorded from as deep as 2059m (Maluf 1988). In addition, *O. rudis* will have a disk covered with cylindrical spines, versus the thorny spines found on *O. spiculata*. *O. rudis* will have 5-6 minutely (or not at all depending on which description is being read) serrated arms spines and *O. spiculata* will have 7 obviously serrated arm spines. For a further discussion of these two species see Nielsen 1932.

Amphioplus strongyloplax is a concern for the author in its potential for confusion with *Amphioplus* sp LA 1 (or *Amphioplus hexacanthus* which is still being used as a "place holder" name by the City of San Diego). The voucher sheet for *Amphioplus* sp LA 1 has not yet been distributed, and until it can be compared with Hendler's discussion of *A. strongyloplax* in the MMS Atlas, I have no

advice on how to differentiate these two species. Perhaps one of our readers more familiar with this current situation can enlighten us on the differences.

Ophiopholis aculeata vs *Ophiopholis bakeri*: The most obvious difference between the two species is that the dorsal disk surface of *O. aculeata* is covered with rounded granules in contrast to the spines found on the dorsal disk of *O. bakeri*. In Nielsen 1932, he separates the two species on the basis of whether or not the small plates surrounding the dorsal arm plates form a closed ring. Neilsen also cautions that McClendon's figures of the mouth papillae are in disagreement with Clark's drawings as well as his own observations.

With that we were out of time for the day. There are many more ophiuroid species that could be encountered in the B'03 samples and it is the author's hope to find the time to schedule a second ophiuroid meeting.

SPELLING ERROR

Following is an email from Eric Hochberg (SBMNH) with a spelling correction for the last newsletter:
"Just went through the latest newsletter (July) and the cnidarian section. When John & I published the octocoral section of the Taxonomic Atlas we made a mistake in spelling which was reversed by an ICZN ruling. The correct generic spelling for *Ombellula magniflora* is *Umbellula*.
Here are references to name conservation for *Umbellula.*

Opinion 1903: *Umbellula* Cuvier, [1797] (Cnidaria, Anthozoa): conserved as the correct original spelling, and corrections made to the entries relating to *Umbellularia* Lamarck, 1801 on the Official Lists and Indices of Names in Zoology. Bulletin of Zoological Nomenclature, 55(3): 187-188 [September].
Bayer, F.M. & M. Grasshoff. 1997. Original application. Bulletin of Zoological Nomenclature, 54: 14-18 [March].
Cornelius, P.F.S. 1997. Comment. Bulletin of Zoological Nomenclature, 54: 183 [September]."

VOUCHER SHEET

Attached at the end of the newsletter you will find a voucher sheet for *Laomedea calceolifera* produced by John Ljubenkov.

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Please visit the SCAMIT Website at: **http://www.scamit.org**

SCAMIT OFFICERS:

If you need any other information concerning SCAMIT please feel free to contact any of the officers at their e-mail addresses:

President	Kelvin Barwick	(619)758-2337	kbarwick@sandiego.gov
Vice-President	Leslie Harris	(213)763-3234	lharris@nhm.org
Secretary	Megan Lilly	(619)758-2336	mlilly@sandiego.gov
Treasurer	Cheryl Brantley	(310)830-2400x5500	cbrantley@lacsd.org

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Volumes 1 - 4 (compilation)	$ 30.00
Volumes 5 - 7 (compilation)	$ 15.00
Volumes 8 - 15	$ 20.00/vol.

Single back issues are also available at cost.

The SCAMIT newsletter is published monthly and is distributed freely through the web site at www.scamit.org. Membership is $15 for the electronic copy available via the web site and $30 to receive a printed copy via USPS. Institutional membership, which includes a mailed printed copy, is $60. All new members receive a printed copy of the most current edition of "A Taxonomic Listing of Soft Bottom Macro- and Megainvertebrates … in the Southern California Bight." The current edition, the fourth, contains 2,067 species with partial synonyms. All correspondences can be sent to the Secretary at the email address above or to:

SCAMIT
C/O The Natural History Museum, Invertebrate Zoology
attn: Leslie Harris
900 Exposition Boulevard
Los Angeles, California, 90007

Laomedea calceolifera (Hincks, 1871)
Cnidaria: Hydrozoa: Family Campanulariidae

SCAMIT CODE: None

SYNONOMY: *Obelia* sp A MEC 1990 § in SCAMIT, 3rd and 4th Editions

LITERATURE:

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DIAGNOSTIC CHARACTERS (see figure by Carol Paquette):

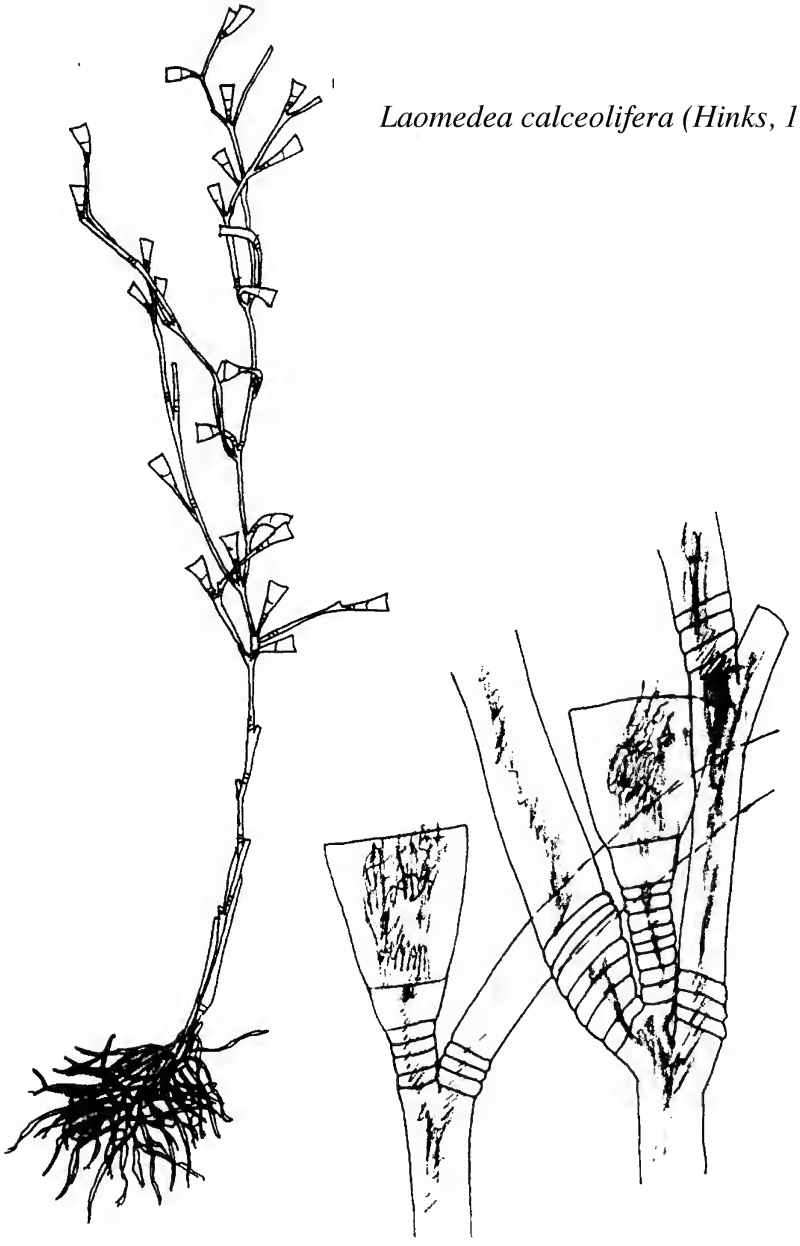
1. colony to about 3 cm in height
2. proximal part of stem polysiphonic, distal part and branches (hydrocladia) monosiphonic
3. attachment a tuft of rhizoids
4. rim of hydrotheca poorly defined, but typical Campanularian bell shape
5. so far all specimens are without any reproductive structures

RELATED SPECIES AND CHARACTER DIFFERENCES: There are two other strongly fascicled Campanularians on the Pacific Coast: 1) *Rhizocaulus verticillatus* (Linnaeus, 1767), which has branches with hydrothecae arranged in irregular whorls; and 2) *Obelia gelatinosa* (Pallas, 1766), a stunning colony with a strongly fascicled central stem [up to 25 cm] and V-shaped pairs of branches whose origins whirl around the stem. See Fraser (1937) for images as *Campanularia verticillata* and *Campanularia gelatinosa*.

DEPTH RANGE: subtidal to offshore, common around the 60-meter mark.

DISTRIBUTION: Found commonly throughout the Southern California Bight, but not recorded from the northern Pacific Coast of the United States. This is a boreal species also noted from the Atlantic and Western Boreal Pacific. Like much of the hydrozoan fauna of our region, this species has a very wide distribution.

NOTES: For years this species has been enigmatic because no reproductive structures have ever been found. However a good specimen collected off Orange County and illustration (by Carol Paquette [MBC] (see below) were sent to Dr. Sofia Stepanjants of the Russian Academy of Sciences, who has published extensively on Family Campanulariidae and on the genus *Obelia*. She has determined that this species is so close that it is essentially identical to *Laomedea calceolifera* (Hincks, 1871). However, since reproductive structures have never been found in our specimens, illustrations of the reproductive structures from Pacific specimens are presented in publications by Antsulevitch and Chapligina.

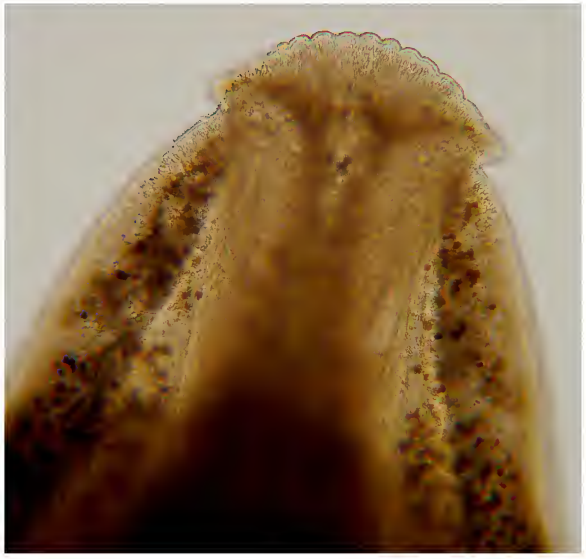


Laomedea calceolifera (Hinks, 1871)

Southern California Association of
Marine Invertebrate Taxonomists

September, 2003 **SCAMIT Newsletter** Vol. 22, No. 5

SUBJECT:	**Selected Polychaetes (*Polycirrus* spp, Magelonidae, Lumbrineridae and *Glycera* spp)**
GUEST SPEAKER:	***Polycirrus* spp - Kelvin Barwick, Magelonidae - Rick Rowe, Lumbrineridae - Larry Lovell, *Glycera* spp - general discussion/Leslie Harris**
DATE:	**12 January 2004**
TIME:	**9:30 a.m. to 3:30 p. m.**
LOCATION:	**LACMNH - Polychaete Room**



Magelona sp B fide Harris & Rowe 2003
Anterior terminus detail, crenulated margin.
City of San Diego, Regional SBOO 2741 rep.2, 23July2003, 500ft. Specimen in DLZ collection #214. This is the larger of the two specimens imaged from the sample. Imaged 29/30Sept2002, Sony707, Martin Microscope adapter, Nikon Optiphot 2 microscope by R. Rowe.

AUGUST MINUTES

The meeting was held at the San Diego lab. President Kelvin Barwick opened the business part of the meeting with the statement that all officers had been re-elected in this year's elections. Treasurer Cheryl Brantley announced that there are currently 107 members in SCAMIT. Most members have paid their dues which were due in May.

Larry Lovell (SIO) told us about a group of graduate students at UCSD who are interested in the taxonomy of micro-mollusks. One of the students, Benjamin Pister, is studying mollusk communities in the rocky intertidal community at Cabrillo National Monument in Pt. Loma. He will be presenting his work at the San Diego Shell Club meeting on August 21st. Larry would like to organize and sponsor a workshop on the taxonomy of micro-mollusks in order to assist Benjamin and the other students with their

The SCAMIT Newsletter is not deemed to be a valid publication for formal taxonomic purposes.

research. Larry asked if anyone could help out. Kelvin offered to attend the Shell Club meeting and write up a short article for the SCAMIT newsletter.

Next, Ron Velarde announced some upcoming meetings. The 6th California Islands Symposium is being held December 1st-3rd at the Marriott in Ventura. The benthic working group from Bight'98 submitted an abstract for a presentation at this conference. The title is "Relationships in Benthic Macrofaunal Composition Between the Channel Island Shelf and the Mainland Shelf of the Southern California Bight" and was co-authored by J. Ananda Ranasinghe, Ronald G. Velarde, Donald B. Cadien, Tim K. Mikel, David E. Montagne, and Stephen B. Weisberg.

Larry Lovell has two new publications out. The first appears in the Proceedings of the International Workshop on the Polychaetes of the Andaman Sea; June-August 1997, Phuket Marine Biological Center Special Publication No. 24, 2002, and is titled "Paraonidae (Annelida:Polychaeta) of the Andaman Sea, Thailand". There were a couple of articles from other local polychaete workers as well. Karen Green has a paper on the capitellids and Kirk Fitzhugh, a paper on the sabellids. Larry noted that the publication was difficult to obtain, and he went through Wells Fargo Bank, San Francisco to successfully wire money to Thailand. The cost was $25 plus an additional fee for wiring the money.

Larry's other publication, co-authored with Kent Trego, is titled, "The epibenthic megafaunal and benthic infaunal invertebrates of Port Foster, Deception Island (South Shetland Islands, Antarctica)", Deep-Sea Research Part II – Topical Studies in Oceanography 50(10-11):1799-1819, 2003. Larry explained that there were numerous problems in several papers in the original published edition, and it is going to be completely re-published by Pergamon-Elsevier Publishers. Be aware that the original version (with errors) is still lurking on the web.

Rick Rowe and Sarah Douglass (CSD) have been working on a spell checker of the SCAMIT species list. Ron Velarde is currently proof-reading the non-polychaete groups, and Rick has proof-read the polychaetes. This custom spell checker can be used in Access and Word. Sarah is writing up instructions on how to use it and will distribute them on the SCAMIT list server.

With business complete, we started our taxonomic topic for the day, deeper water worms. Larry passed out a handout that included polychaetes sampled from Orange County stations that are 200m or deeper. There were 16 stations (depths 200-300m) that fit this criteria. The table included annual data (presence/absence) and cumulative counts of each species from 1985 through 2001. We discussed references and protocols that we will use to identify the more difficult species from the Bight'03 project starting with the most abundant.

Maldane sarsi had the highest abundance at 2,574. It was noted that *Maldane californica*, a similar species to *M. sarsi*, occurs in deeper water. Use Karen Green's paper in the 1989 proceedings of the polychaete conference for a reference.

Spiophanes fimbriata had the second highest abundance with 1,762 individuals. Follow Karin Meissner's work that was presented at the March 2003 SCAMIT meeting and described in the newsletter Vol. 21, No. 11. Karin described a new species from California that is similar to *S. fimbriata*. There was a discussion on chaetal spreaders and their effectiveness as a character. They can be difficult to observe on smaller specimens. Rick suggested cutting off a

parapod and mounting it on the compound scope. The nuchal organs are also a useful character to distinguish *S. fimbriata* from Karin Meissner's new species from California.

Paraprionospio pinnata had the third highest abundance with 1,541 individuals. We believe that *P. pinnata* is potentially a species complex. If anyone can demonstrate a difference between deep and shallow water forms, please let us know!

Melinna heterodonta: It was noted that juveniles of *M. heterodonta* and *M. oculata* are difficult to tell apart. A good character to use is the lack of branchial pigment in *M. heterodonta* and the presence of branchial pigment in *M. oculata*. In adult specimens of *M. heterodonta*, the branchiae are a greenish color and are thicker than in adult specimens of *M. oculata*. In addition, *M. heterodonta* is a larger species than *M. oculata*.

Myriochele gracilis: SCAMIT includes under this name specimens that would key to *M. olgae* in Blake 2000. Rick Rowe and other taxonomists at CSD use methyl green staining patterns to distinguish between several species of Oweniids. Rick will distribute these soon. CSD taxonomists are recording a few more *M. pygidialis* since they started using the staining patterns.

Scoletoma luti – S. tetraura complex: Rick commented that while he does not have a copy of the original description, Berkeley and Berkeley's 1948 *Lumbrineris luti* is illustrated with a much longer posterior postsetal lobe than he sees in his specimens. Leslie commented that *S. luti* does have long to very long posterior postsetal lobes. Not many Southern California specimens fit into it, although it does occur here. We agreed to continue to use *S. tetraura* complex, and use *S. luti* for those specimens with very long lobes. Be on the lookout for other species of *Scoletoma*.

Onuphis iridescens: We discussed whether pigment bands are present on the anterior setigers of this species. Rick commented that the pigment bands may be very diffuse in at least some specimens. Leslie commented that the presence of pigment bands is a misconception that goes back 30 years to Ida Duesberg formerly of OCSD. Leslie has examined the type material, questions the validity of the pigment bands, and noted that the identity of the banded species remains to be worked out.

Pista wui: Currently, different labs use different names for this species. There was a discussion about this at the second *Pista* meeting last spring. Two compact discs containing images of two *P. wui* specimens from the City of San Diego lab were passed out to each agency in attendance at the August 2001 SCAMIT meeting (see the newsletter Vol. 21, no. 4). Also distributed at that time was a compact disc with the Leslie Harris drawings of methyl green staining patterns of an additional nine "*Pista*" taxa that should be considered when identifying material from California. The nomenclature used on those compact discs is the result of the March 2001 SCAMIT *Pista* workshop and specimen exchange effort. We will discuss this at the September 2003 meeting to clarify name usage issues.

Glycera nana: Rick believes there are two forms and has images to support this. In one form (*G.* sp SD 2), the two presetal lobes are subequal in length. In the second form, the inferior presetal lobe is larger than the superior, and is very similar to what is illustrated in Boggemann 2002, page 90 for *Glycera capitata*. There was a discussion about whether to lump these forms or keep them separate. We decided to use *G. nana* to identify both forms for the Bight '03 project, but we'll look for these two forms and make comments on the data sheets.

Aphelochaeta glandaria: This is a problematic taxa. There is great variation in staining pattern, and we believe there is a continuum with *A. glandaria* at one end and *A.* sp A at the other. Many specimens exhibit staining patterns intermediate to these species. There was a discussion on whether we should change our convention from the Bight '98 project. We decided to identify this species complex using the following conventions: identify as *A. glandaria* the specimens that clearly match the staining pattern on the identification sheet of *A. glandaria* (no ventral stain), identify as *A.* sp A the specimens that clearly match the staining pattern on the identification sheet of *A.* sp A, and identify specimens that have intermediate staining patterns (ventral striping of a variable number of setigers) as *Aphelochaeta* spp. Cheryl Brantley and Rick Rowe will discuss, and hopefully have some images to illustrate, this problem at the September 2003 SCAMIT meeting.

Prionospio lighti: Larry commented that we may see some specimens with longer branchiae than usual, but don't confuse them with *P. multibranchiata* which occurs in shallow water. Leslie explained there is also *P. delta* and several undescribed local species with very long branchiae; some have branchiae that are so long and thin, they look like cirratulid branchiae. Do check other characters, and if you find unusual specimens, post the information to the Bight'03 Taxon List Server.

Lumbrineris sp: Use this designation for: 1) specimens with compound hooks in which the acicular color can not be determined, 2) juveniles, and 3) anterior fragments. At the deeper stations, be on the lookout for *Lumbrineriopsis*.

Nephtys ferruginea: Use staining pattern for small specimens. Larry noted that we are not using the name *N. signifera*, since we are following Lovell (1997) in considering it a junior synonym of *N. ferruginea*.

Notomastus sp A: This is our old *N. tenuis*. The voucher sheet, prepared by Rick Rowe, was distributed at the June 2001 SCAMIT meeting.

Phisidia sanctaemariae: This is our old *Lanassa* sp D.

Maldanidae: Use for anterior ends and juveniles. Leslie noted that anterior ends over 0.75mm in diameter can in most cases be easily identified using stain patterns.

Rhodine bitorquata: In addition to anterior ends, Larry also identifies median fragments. Others objected and adhere to the strict rule of counting only anterior ends.

Amphicteis scaphobranchiata: There was a discussion about lab protocols for distinguishing specimens of *A. scaphobranchiata*, *A. glabra*, and *A. mucronata*.

Ampharete sp: Use for damaged or very small specimens in which the abdominal setigers cannot be counted. *Ampharete* sp have 2 setigers with capillary setae anterior to the 1st unciniger.

Chaetozone "setosa": CSD taxonomists distinguish between *Chaetozone* sp SD 1, *C.* sp SD 2, *C. hedgpethi*, etc., but other labs use *C. "setosa"*. Rick Rowe is waiting for Tony Phillip's input, after which Rick will create identification sheets on his provisional species.

Cossura candida: Leslie Harris has said there are 5-6 deep water species. We discussed our confidence in identifying *C. candida*. There is a paucity of information on deeper water Cossurids. Use methyl green stain pattern (and placement of the dorsal tentacle) to identify *C. candida* and *C.* sp A; otherwise when attempting to identify other species, please be sure to post a notice to the Bight'03 Taxon List Server. As a last resort, identify as *Cossura* spp.

Pista bansei: SCAMIT now uses *P. estevanica* Berkeley and Berkeley 1942 in place of *P. bansei*.

Monticellina serratiseta: Larry and Tony use this for old *Tharyx* sp B. Rick needs to discuss this with Tony.

Myriochele striolata: This is our old *Myriochele* sp M. The species name is misspelled in the SCAMIT Ed. 4 listing. There is only a single "i" in the name in the original publication.

Sternaspis fossor: Ron wondered if this name has changed and will check on it. For now, SCAMIT is following Petersen 2000.

Nereis procera: We had discussed this at a previous meeting. Leslie has examined the type specimen, and the paragnaths were much smaller than in the specimens we get. Rick volunteered to prepare a voucher sheet for our provisional species, *Nereis* sp A.

Malmgreniella nigralba: Use Rick's color identification sheet.

Polycirrus sp A (Phillips 1994): We discussed how we identify *P.* sp A and were all comfortable with it. If abdominal segments are not present, identify the specimen as *P.* spp. Larry offered to bring some specimens of *Polycirrus* spp to the next meeting for examination.

Glycera americana: There was a discussion about counting ridges on proboscidial organs. According to Böggemann 2002, the ridge count is one character that can be used to differentiate *G. pacifica* (three ridges) from *G. americana* (two ridges). We discussed whether everyone was willing to examine the proboscidial organs on their *Glycera* specimens. Rick volunteered to investigate this issue and post his findings on the Bight'03 Taxon List Server. If anyone finds specimens with only 2 ridges on the proboscidial organs (Böggemann's *G. americana*), please bring them to the next meeting.

Chaetozone commonalis: Rick previously examined some of Larry's specimens of *C. commonalis* and agreed with the identification. Rick cautioned us not to consider only posterior spines from the last couple of setigers during identification of this species (and others), because they often have morphology different from the rest of the abdominal spines.

Aricidea (Acmira) lopezi: Rick has an image of the setae that he will distribute.

Fauveliopsis glabra: There is a comparison of *F. glabra* with *F.* sp SD 1 in Volume 19, No. 9, (2001) of the SCAMIT newsletter.

Malmgreniella scriptoria: This scale worm has been collected on the heart urchin, *Brisaster latifrons*. Refer to the remarks in the MMS Atlas (Volume 5, page 153). Rick volunteered to produce a voucher sheet for this species.

Brada pluribranchiata: SCAMIT is not accepting Blake's synonym of *B. pluribranchiata* with *B. villosa* (Blake 2000).

Pherusa neopapillata and *P. papillata*: These two species appear to have their descriptions reversed in the MMS Atlas, Volume 7, page 17. Leslie has examined the holotypes. Refer to the discussion where SCAMIT reviewed this volume in the January 2001 SCAMIT newsletter, Volume 19, No. 9. In our sampling programs, we mostly encounter *P. neopapillata*. *P. papillata* might be associated with hard substrata.

Travisia pupa: This is a large and odoriferous species. Larry commented that length of the branchiae is not a reliable character although it is mentioned in the literature as such. The shape and count of the posterior lobes separate *T. brevis* from *T. pupa*.

Heteromastus filobranchus: Rick asked if anyone has the staining pattern(s) for this species. In the March 2001 newsletter (Vol. 19 No. 11), Tony Phillips commented that adults and juveniles stain differently. Leslie responded that she has the staining pattern of Southern California specimens.

Aphrodita sp: Larry is in the process of collecting specimens to attempt to sort out this group. Small specimens are problematic. Larry uses Rossi's key which you can find in the SCAMIT newsletter, Volume 14 No. 11. Ron believes *A. japonica* is a catch-all, and he can identify *A. refulgida* with confidence.

Malmgreniella sanpedroensis: Rick has good pictures and will put together a voucher sheet. Tom Parker noted that he has constructed a key for species of *Malmgreniella*.

Nereiphylla ferruginea: This identification remains questionable. Only some *Nereiphylla* with very long antennae and tentacular cirri can be referred to *N. ferruginea*. The others belong to undescribed species. Larry will see if he can possibly find this specimen.

Hesperonoe complanata: Only Orange County has reported this species. Rick Rowe (CSD) has reported *H. laevis*; there was some discussion as to whether *H. complanata* and *H. laevis* are the same species. Gene Ruff has used *H. laevis* for deep material. If/when anyone gets a specimen of *Hesperonoe*, please post the specimen information to the Bight'03 Taxon List Server.

Fauveliopsis armata: There is a discussion of this species and other species of *Fauveliopsis* in Volume 19 No. 9 of the SCAMIT newsletter.

Cirratulus cirratus: SCAMIT uses this binomial while recognizing that our species might be near *C. spectabilis*. Refer to the discussion in Volume 15 No. 7 (November 1996) of the SCAMIT newsletter. Leslie commented there are several undescribed species of *Cirratulus* here.

Monticellina sp 2: We were not sure what this is; Larry needs to talk to Tony about this and will report back to us.

Eclysippe trilobata: Rick suggested that we carefully examine specimens of *E. trilobata* from deep stations, since he has noticed some differences from the specimens collected in shallow water. Specifically, observe the relative setiger length of uncinigers 6,7,8, and beyond. Also, look closely for the presence/absence of transverse dorsal membranes on uncinigers 8-12 by first staining with alcian blue. Make notes during your identifications, and contact Rick if you observe any differences from our shallow water form. Leslie reported that she has collected an undescribed species of *Eclysippe* from deeper water.

Euchone velifera: Larry has some specimens, and the larger ones are obviously winged. *E. velifera* is similar to *E. arenae*.

Arcteobia cf anticostiensis: This species is characterized by having capillary setae in the notopodia. Larry has used Ross Duggan's older key to the polynoids to key it. Ron has suggested that there might be two forms with different types (arrangement of the bracts as in *Harmothoe* vs. *Malmgreniella*) of non-capillary notosetae. Larry will try to bring specimens to the next meeting.

Tenonia priops: Ron questioned these records because they are deep, and CSD has only recorded *T. priops* in shallow water. Cheryl Brantley checked these specimens, and they are correct.

Malmgreniella sp SD 2: There is some confusion over the use of this name. Some of the Southern California Bight specimens that have been referred to *M. bansei* were examined by Rick Rowe in 1998. Those specimens differed from *M. bansei* in several characters, and those differences are noted in

the color identification sheet for *M.* sp SD 2. Rick has seen a few more specimens in the last several years and continues to refer them to *M.* sp SD 2.

Aglaophamus eugeniae: Refer to the description in Fauchald 1972.

Dipolydora bidentata: There was a request to view specimens at the next meeting.

Spiophanes bombyx: The distribution of this species is highly sediment driven, and it is sometimes seen in deeper water.

Mesochaetopterus sp: Our convention is to use spp since specimens are usually quite damaged. Leslie commented there are undescribed species of *Mesochaetopterus* and *Phyllochaetopterus* in Southern California.

Myriochele heeri: The Berkeley and Berkeley 1942 and 1952 reports were synonomized by Blake 2000 with *Galathowenia oculata* but not with the original description.

Glycera branchiopoda: This record from Orange County Sanitation District may be *G. nana*. Refer to the SCAMIT newsletter Volume 21, No. 7, pages 3-4 for discussion. We might see *G. branchiopoda* in the deeper Bight 2003 samples. According to Leslie, this species is found deeper than 300m.

Goniada annulata: This species is described in Hartman's Atlas; it has distinctive lateral grooves on the prostomium.

Scoletoma sp A: Larry commented that *S.* sp A is seen most often in bays, but may be grain size dependent, and thus, occasionally found in deeper waters. Leslie has never seen it deeper than 60m.

Malacoceros punctata: Most SCAMIT members follow the Taxonomic Listing Ed. 4 where it is listed as *M. indicus*. Leslie prefers to use *M. punctata* and feels there is not enough justification to switch; however, she agreed with other members to use *M. indicus* for the Bight'03 project.

Microspio pigmentata: We agreed to make notes on the prostomial pigment of specimens that we encounter, since there is some variation in this character. Leslie noted that the only real variation is extent of density and area. There are undescribed species present, so if anyone sees something different, set it aside, and post the character information to the list server.

Magelona berkeleyi: Rick has updated Dean Pasko's 1991 key for the Magelonids and has made numerous changes. *Magelona* sp B fide Harris and Rowe in prep is a new species that is similar to *M. berkeleyi*. *M.* sp B has even crenulations on the anterior margin of the prostomium. The stain patterns are distinct for these species; however, Rick cautioned that sometimes specimens of *Magelona* do not stain. When specimens do uptake stain, *M.* sp B stains both dorsally and ventrally through the thoracic setigers. In contrast, *M. berkeleyi* stain usually starts at the middle of setiger 4 and continues back through the thorax. Rick will release a voucher sheet with the next newsletter.

Notomastus magnus: There was a question about distinguishing *N. magnus* from the similar *N. latericeus*. *N. magnus* has branchiae in the median to posterior abdominal setigers whereas *N. latericeus* does not. The complicating factor is that specimens we collect are often broken anterior to where the branchiae start. These species can be differentiated though by the shape of the anterior abdominal neuropodial and notopodial lobes which are triangular and pointed in *N. latericeus* and low and rounded in *N. magnus*. There is also a difference in stain pattern; *N. latericeus* has two bands of stain, one anterior and one posterior to the neurosetal

fascicles on the anterior abdominals (see Rick Rowe's 1995 voucher sheet), *N. magnus* has nondescript anterior dorsal stain on the anterior abdominals. In addition the papillar organs on the dorsum of *N. latericeus* often stain as round spots. Leslie commented these species are really not that similar, and it's highly unlikely that we have *N. latericeus* here.

Myriochele oculata: This is not in the SCAMIT Taxonomic Listing yet because it is a deeper water species. It is listed as *Galathowenia oculata* in the MMS Atlas, and we agreed to use *G. oculata* for Bight'03.

Euchone limnicola: It's unusual to see this species in deeper water. Larry will look for this specimen for the next meeting.

Jasmineira sp A: This is a specimen of *Fabrisabella* sp A (SCAMIT 1986) which was formerly designated as *Jasmineira* sp A (Harris).

Ron reported from a Bight'03 benthic group meeting the idea of having Lead Specialists for problematic taxa. These would be volunteer positions. The rationale is that the quality of data would be improved if one person looked at material from a variety of locations. Larry volunteered to be Lead Specialist for difficult and unusual specimens of Paraonidae, Nephtyidae, and Maldanidae. He added that he would be more than happy to let Leslie do the Maldanidae. Ron Velarde volunteered to be Lead Specialist for Sphaerodorids and Phyllodocids. Rick Rowe volunteered to be Lead Specialist for Polynoids. If anyone encounters difficult or unusual specimens of these taxa, please pass them on to the appropriate Lead Specialist. In addition, please let Ron know if you are interested in being a Lead Specialist. Leslie volunteered to take on the rest of the families with the exception of the Cirratulidae.

Larry suggested that we have a special section in the newsletter to document additions and updates to the SCAMIT species list. This would serve as our official notification of SCAMIT approved species name changes. It was suggested that this section be in the form of a box called "Updates to SCAMIT species list". This would allow all the labs to make species name changes concurrently. We will continue to discuss this idea further.

JOB OPPORTUNITY

Santa Barbara Museum of Natural History
SEA CENTER DIRECTOR

The Santa Barbara Museum of Natural History is looking for a dynamic, creative marine biologist/educator to serve as the Director of our new marine science education center located on the water at historic Stearns Wharf in Santa Barbara, California.

The new Sea Center will be an interactive marine laboratory for the public, with visitors encouraged to participate in ongoing ocean sampling and analysis. The facility will initially have five primary areas of focus in the Santa Barbara Channel region; the intertidal (including sandy beach), human/ocean interactions, oceanography, applied marine research, and marine mammals. For further information on the facility go to: www.sbnature.org/seacenter/. For the exhibit plan go to: www.sbnature.org/Sea_Center_plan.pdf (2 MB file). The new Sea Center will open to the public in December 2004.

This full time senior management position requires a person with excellent organization and people skills and strong connections throughout the marine science community. Higher degree in the marine sciences strongly preferred. Salary commensurate with experience. Submit resume and cover letter to: Santa Barbara Museum of Natural History, Human Resources - SCD, 2559 Puesta del Sol Road, Santa Barbara, CA 93105 or fax to 805-

569-3170. Applications will be accepted through January 15, 2004. The Santa Barbara Museum of Natural History is an Equal Opportunity Employer.

For application information go to www.sbnature.org/visitors/hr.htm or contact Diane Wondolowski at dwondolowski@sbnature2.org.

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Please visit the SCAMIT Website at: **http://www.scamit.org**

SCAMIT OFFICERS:

If you need any other information concerning SCAMIT please feel free to contact any of the officers at their e-mail addresses:

President	Kelvin Barwick	(619)758-2337	kbarwick@sandiego.gov
Vice-President	Leslie Harris	(213)763-3234	lharris@nhm.org
Secretary	Megan Lilly	(619)758-2336	mlilly@sandiego.gov
Treasurer	Cheryl Brantley	(310)830-2400x5500	cbrantley@lacsd.org

Back issues of the newsletter are available. Prices are as follows:

Volumes 1 - 4 (compilation).....	$ 30.00
Volumes 5 - 7 (compilation).....	$ 15.00
Volumes 8 - 15	$ 20.00/vol.

Single back issues are also available at cost.

The SCAMIT newsletter is published monthly and is distributed freely through the web site at www.scamit.org. Membership is $15 for the electronic copy available via the web site and $30 to receive a printed copy via USPS. Institutional membership, which includes a mailed printed copy, is $60. All new members receive a printed copy of the most current edition of "A Taxonomic Listing of Soft Bottom Macro- and Megainvertebrates … in the Southern California Bight." The current edition, the fourth, contains 2,067 species with partial synonyms. All correspondences can be sent to the Secretary at the email address above or to:

SCAMIT
C/O The Natural History Museum, Invertebrate Zoology
attn: Leslie Harris
900 Exposition Boulevard
Los Angeles, California, 90007

Southern California Association of
Marine Invertebrate Taxonomists

October, 2003

SCAMIT Newsletter

Vol. 22, No. 6

SUBJECT:	**B'03 Polychaetes continued - *Polycirrus* spp, Magelonidae, Lumbrineridae, and *Glycera americana*/ *G. pacifica*/*G. nana*.**
GUEST SPEAKER:	**none**
DATE:	**12 Jaunuary 2004**
TIME:	**9:30 a.m. to 3:30 p. m.**
LOCATION:	**LACMNH - Worm Lab**

Piromis sp A fide Harris 1985
Anterior dorsal view. Image by R. Rowe
City of San Diego
ITP Regional 2701 rep. 1, 24July00, depth 264 ft.

SWITCHED AT BIRTH

The reader may notice that although this is only the October newsletter, the minutes from the November meeting are included. This is not proof positive that time travel is possible, but reflects the mysterious translocation of minutes from the September meeting to a foster home in Detroit. Since the November minutes were typed and ready to go, rather than delay yet another newsletter during this time of frantic "catching up", your secretary made the decision to go with what was available. Let me assure everyone that the September minutes will be included in next month's newsletter. Megan Lilly (CSD)

NOVEMBER MINUTES

The October SCAMIT meeting on miscellaneous polychaete issues was cancelled due to the wildfire situation in Southern California. It has been rescheduled for January

The SCAMIT Newsletter is not deemed to be a valid publication for formal taxonomic purposes.

12th. The scheduled topics remain: 1) *Polycirrus* spp, 2) Magelonidae, 3) Lumbrineridae, and 4) *Glycera americana*/*G. pacifica*/*G. nana*.

Please remember that the end of December is the deadline for turning in your ballots for the recommended Constitutional changes that appeared in the last newsletter. The ballots should be sent to Vice President Leslie Harris.

The Southern California Academy of Sciences is hosting their annual meeting at California State University, Long Beach (CSULB) on May 14th – 15th. Dr. Donald J. Reish, the CSULB professor so instrumental in the formation and growth of SCAMIT, will be receiving the first Wheeler North Memorial Award at the SCAS meetings. Kelvin Barwick is working with John Dorsey and Rick Rowe, two of Dr. Reish's former students, to create a SCAMIT hosted one-day symposium, "Ecology and Taxonomy of Marine Invertebrates: Honoring the Legacy of Donald J. Reish." If you are interested in presenting, please contact Kelvin, John, or Rick.

A series of informal micro-mollusk talks has been organized to help graduate students at Scripps Institute of Oceanography with taxonomic identifications. Dr. James McLean hosted the first meeting covering gastropods at the Natural History Museum on December 6th. The second talk will be held with Dr. Paul Scott on January 17th at Scripps. Members interested in participating should contact Larry Lovell for more details. Don Cadien provides an overview of the first meeting later in this Newsletter.

On Saturday, January 24th 2004, the annual Southern California Unified Malacologists, a.k.a. SCUM, meeting will be held. Member Ron Velarde is organizing the meeting this year. It will be held at the Cabrillo Marine Aquarium in San Pedro. Please let Ron know if you will be attending so arrangements can be made to accommodate all expected participants. If you don't have his contact information, RSVP to Secretary Megan Lilly at the addresses listed in this Newsletter.

The guest speaker for our meeting on Monday, November 17th was Dr. Sergio Salazar-Vallejo from ECOSUR in Mexico, who is currently on sabbatical. He has spent the last few months working on a revision of the polychaete family, Flabelligeridae. He presented his recent findings on California flabelligerids at this meeting. He reviewed the six genera Hartman included in her *Atlas of Polychaetous Annelids from California*; *Brada, Flabelliderma, Flabelligera, Ilyphagus, Pherusa and Piromis.* Sergio distributed a handout at the meeting, which summarizes his comments and current opinions on these genera and some of the local species. The handout will be distributed as an attachment to a future newsletter. After discussing the handouts and commenting on problems within the genera, Dr. Salazar-Vallejo used projected images to demonstrate diagnostic characters.

The first slide was of the anterior fragment of the holotype of *Pherusa negligens* which has very long neurosetae with hooded tips. This character is unique.

Sergio then showed images of *Ilyphagus* with its flat, short, sausage-like body that he mentioned in his handout.

Next was a slide of a *Stylariodes* from the Philippines, which had many long filaments in the cephalic cage region. The pygidium tapered and the setae were bluntly rounded. Sergio may erect a genus for this species.

At lunch we were treated to delicious homemade Chicken Mole with Spanish rice and salad, compliments of Sergio and Leslie Harris. Guest speakers making native dishes for our lunch is an enjoyable addition to a SCAMIT meeting. It was decided we might have to produce a SCAMIT cookbook (the recipe for polychaete cheese-log at last?).

After lunch Sergio explained and demonstrated his technique for cleaning flabelligerid specimens. He places the specimen in a small dish of undiluted white vinegar and then, under the microscope, gently brushes the specimen using a small, thin brush. He has been using this technique for quite some time, and it doesn't damage the papilla or the setae on the animal. Cleaning the specimen allows characters to be viewed more easily.

We then examined flabelligerid specimens that members brought to the meeting. Tom Parker (LACSD) brought a *Pherusa*-like animal to share from deep water (500+) off the Palos Verdes Peninsula. Members thought it might be *Diplocirrus micans* Fauchald 1972 when some long filaments appearing to be branchiae were found emerging from the retracted anterior end. However, further examination by Sergio proved that this animal really didn't fit into either *Pherusa* or *Diplocirrus.* It didn't have the branchiae described for *Diplocirrus,* and the close-set annulations and foliose tips on the setae fit neither genus. For now it will be called *Pherusa*? sp, and a voucher sheet is being prepared by Tom Parker to help members working on Bight '03 samples that might encounter this deep water animal. This specimen demonstrated Sergio's point that the family is in need of revision.

Rick Rowe provided the next specimen for examination. The specimen, from a shallow (13m) San Diego Bight '98 sample, was originally referred to *Pherusa* "*capulata*" but subsequently reported as *Piromis* sp SD1. The specimen (and several additional specimens from other Bight '98 shallow samples) had numerous cirriform branchiae and hooked, bifid neurosetae, both characters of *Piromis*. Rick will issue a voucher sheet for *Piromis* sp SD1 and report that it has four groups of multiple small, digitate papillae across the dorsum of anterior parapodia. The common *Piromis* sp A has two very large, triangular papillae on the dorsum of each anterior setiger. Sergio commented that *Pherusa capulata* should be placed in the genus *Piromis*. *Piromis* sp SD1 is very similar to *Pherusa capulata* and may prove to be synonymous when compared to type material.

Rick also brought another flabelligerid, a *Pherusa negligens*, from San Diego's station B-13 at 380ft depth. Sergio examined it and said it didn't have *Pherusa* hooks, but it did have 8 cirriform branchiae with cilia arranged in rings. He noticed that the setae have a hood that is difficult to see. The striations on the setae make it look articulated, but it is not. This specimen had setae that transition in width; the lateral setae were widest, and the ventral setae were thinnest. Sergio had not seen that in *Pherusa* before. Otherwise he thought the animal was probably *Pherusa negligens*. Sergio is awaiting additional material from the type locality before finalizing the identification. A voucher sheet for *Pherusa* cf *negligens* was released by Rowe and Velarde in 1996, although recently the City of San Diego has dropped the "cf" from the taxon name.

We then examined a large specimen brought by Tom Parker (LACSD) of *Brada pluribranchiata* from 152m. Sergio brushed some of the sediment off while it was in undiluted white vinegar. Leslie Harris, Larry Lovell, and Tony Phillips all commented that they hadn't seen *Brada* with such long setae before. This might be due to the very large size of the specimen. Rick Rowe then shared with us a much smaller specimen of *B. pluribranchiata* that he had brought to the meeting from San Diego's station B-4 at 267 ft. depth. It definitely had much shorter setae. As Sergio discusses in his handout, until he can examine the type specimens of *B. sachalina*, which might be difficult to obtain from the former USSR, the name of both of these specimens should remain *B. pluribranchiata*.

The last animal examined was from Kristian Fauchald labeled *Diplocirrus micans* that was deposited at the museum. This was not type material but rather original material referred to

in the original description. When we compared this *D. micans* to the provisional *Pherusa*? sp specimen Tom Parker first shared with the group, we found that the *Diplocirrus micans* specimen didn't have the annulations on the neurosetae illustrated in the original description by Fauchald 1972 plate 44, pg. 509. The annulations were much closer together than illustrated, and the neurosetae hooked (bent) terminally, both characters indicating that either Fauchald had a mixed lot, or *D. micans* does not belong in the genus *Diplocirrus*. Sergio will examine the type specimens to clarify the taxonomy.

Lastly, Rick Rowe handed out a voucher sheet for *Magelona* sp B and showed some images of *Lumbrineriopsis* sp SD1.

We left the meeting knowing that Dr. Salazar-Vallejo has a lot of work ahead of him revising this family, and we thank him greatly for his time spent on our local material.

MICRO-MOLLUSK WORKSHOP Part I

We held the first of two micro-mollusk identification meetings organized by Larry Lovell (SIO) on 6 December 2003. Participants included Dr. James McLean (Curator Emeritus, Natural History Museum of Los Angeles County), Dr. Doug Ernisse (California State University, Fullerton), Larry Lovell (Curator of Invertebrates, Scripps Institute of Oceanography), Kelvin Barwick (SCAMIT president and CSDMWWD), Tony Phillips (CLAEMD), Don Cadien (CSDLAC), Bonnie Becker (Cabrillo National Monument), Ben Pister (UCSD), Christine Whitcraft (SIO), Tonya Huff (SIO), and Kim Whiteside (CSUF). We met in the mollusk area upstairs at the Natural History Museum so we would have access to Dr. McLean's resources in literature and specimens.

This was not a SCAMIT meeting per se, although SCAMIT member participation was prominent. It was more a part of the Invertebrate Identification Workshops that have been run at Scripps by a group of graduate students dealing with taxonomic issues in their thesis projects. Regardless, the ground covered was of interest to SCAMIT members as well. Kelvin represented us and brought and operated the imaging system which allowed us to stay in our seats and watch the problem animals on the screen rather than filing slowly by the eyepieces of a common microscope. Although he digitized a number of species, even more were available on CD-rom from Ben Pister (including images from Tonya's material).

All the questionable items were rather small, but none were smaller than the dust-sized specimens Tony Phillips had brought of a small, rotund cephalaspid from their sludge-recovery monitoring stations in Santa Monica Bay. This proved, based on morphology of the head and general shell characters, to be a series of very small juveniles of *Parvaplustrum* sp B of SCAMIT. This is one of the many new taxa which Dr. McLean has included in his revision of the West Coast gastropod mollusks. This treatment will be split into two volumes, one from the south (Central Baja to Vancouver Island) and one for the north (Vancouver Island to the Kuriles). Species which occur in the overlap in the Vancouver Island region will be included in both volumes. Dr. McLean made all his specimens available to us for the meeting, as well as all his notebooks of gastropod families and genera, his new species notebooks, and the proof photographs of all the species. He also handed out copies of the photographs for the gastropod section of the new edition of Light's Manual, which he has completed.

After an introduction from Dr. McLean on his project and the nature of the resources available for use during the workshop we began by looking at the images Kelvin had

been creating from vials of problematica provided by the participants. Often these contained multiple unknowns, and provoked a good deal of talk. Kelvin was able to stay ahead of us by digitizing one vial of unknowns while the rest of us tried to identify the last. It seldom became necessary to resort to direct examination of the specimens; the digitized photos usually were clear and detailed enough to allow determination.

Animals examined included several pyramidellids in the genera "*Odostomia*" and "*Turbonilla*", both used in the broad sense (s.l.). In most cases few of our species remain in these genera. Many of the subgenera used by Dall and Bartch in their pyramidellid monograph are now used at generic level, and many other new genera are also in use. There will not be a good source of information on west coast species until Dr. McLean's books are published (date uncertain, but several years at least). Other groups represented were the rissoids (well represented by species of *Barleeia*, *Amphithalamus*, and *Alvania*), rissoellids, cystiscids, retusids, vermetids, epitoniids, vitrinellids, hydrobiids (specifically *Tryonia imitator*), columbellids, muricids, turrids, assimineids, and diaphanids. I'm sure other things slip my mind now...there was more than enough to engage everyone's attention. Even Dr. McLean saw some things that suggested to him not only new species, but new species he didn't yet have in his books. Some specimens stayed with him for further investigation at the end on the day. Altogether a productive day, and a good standard for the next (bivalve) workshop to emulate. It will be held in San Diego on Saturday the 17th of January 2004, with Paul Valentich-Scott leading the meeting. All interested parties are urged to participate. Contact Larry Lovell at llovell@uscd.edu for further details and to say you plan to attend.
Don Cadien (CSDLAC)

OFF THE DEEP END AGAIN

Well, our B'03 field season is long past and we are now processing the materials collected. In addition to the scheduled benthic collections between 200 and 500m we have been given the opportunity to examine samples taken from down to 900+ meters. This extra set of 30 samples was retained from the stations sampled for chemistry in the 500+ stratum by the CINMS folks, who couldn't see the wisdom in discarding them when they were already on board. BRAVO!! Those of us who have the time (or can make the time) to process will get an additional glimpse of what lives beyond our normal ken and the reach of current POTW monitoring programs. We should all come out well rewarded for the effort that we put into processing. Even those participants who cannot directly examine the samples will have the produced data to help them appreciate the benthic communities in deeper portions of the Bight.

The LACSD sampling grid has contained stations at 305m for many years, and so we have a history of examining upper slope samples. This has helped us to prepare for examination of our deeper samples from B'03. We also performed an exploratory study of the down-slope environment off Palos Verdes this summer. Many of these samples were from deeper than 200m. We have now analyzed these (preliminarily) and the data are available to assist others less familiar with slope environment and communities in preparing to identify their own deeper material.

I have assembled data from a total of 118 samples to produce a list of the species we have encountered since 1998 at depths greater than 200m (included at the end of the newsletter). Bight'98 data are thus not included (we sampled only to 200m in that program). The samples come from depths between 215 and 860m, but over half come from between 290-310 meters on our normal sampling grid. This is not an exhaustive list of animals

reported from these depths (as was the echinoderm list produced earlier) and reflects only the constituents of the 118 considered samples. A depth of occurrence range is provided, also based solely on the 118 samples. Most of the species are already known from shallower or deeper samples, but that data is not included here. Number of samples of occurrence is provided, so the relative frequency with which the taxa were encountered is presented along with the observed bathymetric distribution. In a few cases identifications to genus have been included. It is believed that these probably represent single species, but the species identity is not known. You will not recognize some of these species, which have uncirculated provisional designations. No matter; just realize that they represent something different within the genus at the indicated depths. This is also a first pass, and some of these identifications will undoubtedly be refined and or changed later in the process while the historic data will remain mostly fixed.

Other workers in other areas will find different things, but this list may at least alert you to possible species, which will aid in your identifications. Good hunting to you.
Don Cadien (CSDLAC)

SPECIALIST TAXONOMY

As we begin processing our B'03 samples we need to remember that some groups will be receiving attention from specialists, and should only be separated - not identified beyond their group identity. The groups selected were the Cnidaria (John Ljubenkov will do them all this time), the Phorona (Eric Hochberg at the SBMNH will examine them as part of a larger examination of the phylum), the Platyhelminthes (Tony Phillips has volunteered to do these for us all), and the class Aplacophora of the phylum Mollusca (Kelvin Barwick and Don Cadien have gotten permission to work together on them from their agencies). In each case specimens of each group need to be accumulated in a separate vial during processing. Each vial must be labeled with group identity, source sample, collection date, collection depth, processing agency, and a header line identifying that these are B'03 benthic specimens. Standardized label format files have already been distributed to participating laboratories, and these should be used in all cases.

It is recommended that each laboratory keep an accumulation jar for each type of vial, and that vials be placed into these jars immediately after completion of sample sorting. If sorting and identification will take place within a short time of one another (or there is doubt that specialist taxa will be accurately separated during sorting), the separation of the specialist taxonomy groups can be done by the identifying taxonomists rather than the sample sorter. It is important to make these materials available to the specialists as soon as possible, however, so they will have time to perform their examinations and identifications. If we do not distribute the samples for specialist examination until all other data are completed, then we cannot expect to have identifications available for inclusion with other data for analysis.

Counts of specimens going into these vials must be retained by the processing laboratory, as they need to be passed on to the taxonomists identifying the remaining portion of the sample for inclusion on bench sheets. These counts form a place-holder against the later return of information from the specialists. Thus "Phorona 17" may eventually be resolved into counts for three identified species and one unidentified juvenile category. These data modifications are not the responsibility of the processing lab; they are only charged with submitting the appropriate standardized place-holder name and an accurate count in their data submission. Substitution of the specialist derived identifications for the place-holder names will be done following initial data

submissions. Specialty taxa will not be involved in the reidentification QC effort, as the specimens are available to neither Lab A nor Lab B.

Should mis-sorts be found after the initial transport of specialty taxonomy groups to specialists they must be forwarded as rapidly as possible for inclusion in the specialist examination. The specialists should be immediately notified that additional specimens in their group have been found, and the sample (s) and number (s) of specimens involved. Care must also be taken to annotate the bench sheets, indicating that mis-sorts of a specialty group were found, their number, and when they were forwarded to the specialist. If we keep our books straight we will have far fewer data complications to deal with later, and better data as a result. Be as explicit as you can in describing what has taken place regarding specialist taxon distribution, it will avoid unanswerable questions months later when data are being examined.

Transmittal of both the original specialist lots and any subsequent mis-sort derived lots will need to be accompanied by standard chain-of-custody documentation. Prior to shipment the C-of-C should be checked against the bench sheets to confirm that all specialty taxonomy lots separated have been assembled and are being shipped. Whether specialty lots are to be shipped to SCCWRP for central distribution, or are to be dispatched directly from the processing laboratory to the recipient specialist, is not clear from the Laboratory Manual. Please direct questions concerning this issue to SCCWRP prior to any shipments.

COMMENTS ON NEREIDS
by Don Reish, CSULB

In a recent issue of the SCAMIT newsletter, the scientific name of two species of nereid polychaetes were discussed. It was stated that *Nereis grubei* should be referred to as *N. mediator* and *Neanthes arenaceodentata* should be referred to as *Neanthes acuminata.* I do not agree with either of these suggestions. I will indicate the scientific reasons below for my disagreement.

In a 1954 paper (Reish 1954a) I discussed many different species of the eastern Pacific genus *Nereis.* In writing this paper, which dealt with two species of *Nereis*, I examined many of the types within the genus and indicated which ones I had examined. I concluded that *Nereis mediator* was the same species as the type of *Heteronereis grubei*. The genus *Heteronereis*, described from epitokal (reproductive) stage, is a synonym of *Nereis.* Evidence for my conclusion that *N. mediator* is a synonym of *N. grubei* is: (1) the paragnath number and distribution is identical, especially the arrangement on Area VI, and (2) the occurrence of an epitokal notopodial homogomph falcigerous seta in the prenatatory region in the type material and the material from southern California. I have seen this unique seta, which does not occur in atokal (non-reproductive) specimens, in only one other species. The number of prenatatory segments, a good systematic character for the epitokal stage, was very different in that species. Hartman used my figures of *N. grubei* and cited my 1954 paper but did not use the correct name for this species. *Nereis mediator* is not a valid name for this common nereid in the intertidal region of southern California and should not be used. How did this come about? In the 1954 paper cited above, I also placed two additional species in synonymy: *Nereis pseudoneanthes* Hartman and *Nereis eucapitis* Hartman. The basis for my changes was based on the variability of the paragnath arrangement (fusion, for example) as determined by the laboratory reared specimens. In other words, brothers and/or sisters were described as separate species. Hartman (1959) listed these latter two species as synonymous with *N. mediator*. In other words, she accepted these changes without acknowledging their basis. As I was doing my research in her laboratory, she saw all the type material that I had borrowed,

as well as my laboratory reared specimens. We had many discussions of the project as a whole and of my conclusions. She referred to the worm as *N. mediator* in 1959, while retaining *N. grubei* as a valid taxon. She did not state in either her 1961 or 1968 papers why she still referred to this as *N. mediator*, and ignored the name *N. grubei*. In 1968 she used my figures for *N. grubei* (and cited the source of the figures), but used the name *N. mediator* for this animal. People view her 1968 California errantiate volume as "the bible", and do not trouble to look at the underlying literature, so this name usage persists. Of course Hartman is no longer with us, but if you still insist on using the invalid name of *N. mediator*, then I urge you to read my 1954 papers (Reish 1954a, 1954b

The issue of *Neanthes arenaceodentata* vs *Neanthes acuminata* is much more complex. *Neanthes caudata*, which may be referred to as *Nereis caudata* or *Nereis (Neanthes) caudata,* from Europe, is a homonym of a spionid, and Pettibone (1963) renamed the worm, based on material from New England, *Neanthes arenaceodentata*. Later Day (1973) came across this worm in North Carolina and renamed it *N. acuminata* because it was an earlier available name. Europeans still refer to this worm as *N. caudata*. Weinberg, et al. (1990) studied the chromosome number of different populations. *N. acuminata* from New England had 2N=22; *N. arenaceodentata* from my lab population (originally from Los Angeles Harbor in 1964) had 2N=18; collections from the mouth of San Gabriel River and Upper Newport Bay also had 2N=18 but the centromere was in a different location on one chromosome; Hawaiian population had 2N=28. As expected the New England population and my lab population did not reproduce. Joerg Hardege (UK) and I are working on DNA comparisons of different populations of this complex. The New England and my lab populations are very far apart. On basis of these findings the southern California population should not be referred to as *N. acuminata.* What, then, is the correct name for the southern California population? There is no correct name. Should it be described as a new species? Probably; but will it? Hard to say. What about the Hawaiian population and *N. cricognatha* from India? I also collected it from the Marshall Islands in 1957. Worms from these different populations look alike morphologically. At this time I would call the local population *Neanthes arenaceodentata*, in quotes, if you wish. The name *Neanthes arenaceodentata* is widely used in the literature (i.e. US Army Corps of Engineers toxicological manual, Standard Methods, ASTM manuals). The name *Neanthes acuminata* should not be used for Pacific Ocean populations. I now have reproducing populations from sources in Newport Bay, the San Gabriel River, and Connecticut, as well as my original culture. The worms from Connecticut are much smaller, and their eggs are pale yellow in color compared to hen's egg-yolk color in other populations. Yellow tissue surrounds the gut in the Connecticut form, but not in any of the California sourced populations. The nature of this tissue is unknown.

PUBLICATION AVAILABLE

Dr. Michel Hendrickx has notified us that the following publication is available on-line for interested parties: **Hendrickx, M.E. & J. Salgado Barragan. 1991**. Los Estomatopodos del Pacifico Mexicano. Inst. Cienc. del Mar y Limnologia, UNAM, Publ. Esp. 10:1-200. It is available at:

http://biblioweb.dgsca.unam.mx/cienciasdelmar/especiales/1991-10/articulo463.html

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SCAMIT OFFICERS:

If you need any other information concerning SCAMIT please feel free to contact any of the officers at their e-mail addresses:

President	Kelvin Barwick	(619)758-2337	kbarwick@sandiego.gov
Vice-President	Leslie Harris	(213)763-3234	lharris@nhm.org
Secretary	Megan Lilly	(619)758-2336	mlilly@sandiego.gov
Treasurer	Cheryl Brantley	(310)830-2400x5500	cbrantley@lacsd.org

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SCAMIT
C/O The Natural History Museum, Invertebrate Zoology
attn: Leslie Harris
900 Exposition Boulevard
Los Angeles, California, 90007

Infauna recorded from samples taken deeper than 200m by LACSD
Records include 305m monitoring stations on 11 transects from summer surveys between 1998 and 2003 (66 samples); 42 samples between 215 and 860 m off Palos Verdes and the San Pedro Sea Shelf taken in a summer 2003 special slope/basin study; 7 samples from 506-643m from our screen size test; and 3 samples from the B'03 deep group which have been processed by LACSD.
Information from analysis of 118 samples was used to generate the bathymetic distributions included below, but over half came from around 300m

PLEASE NOTE: nearly all species occur outside the bathymetric range seen in present data This range only reflects that observed in the 118 considered samples.

Phylum	Class	Family	Species	N (occ)	Z (m)
Annelida					
	Polychaeta				
		Acoetidae	Polyodontes panamensis	1	600
		Ampharetidae	Ampharete acutifrons	2	296-830
			Amphicteis scaphobranchiata	3	253-660
			Eclysippe trilobata	24	305-860
			Glyphanostomum pallescens	7	600-830
			Lysippe sp A	2	660-826
			Lysippe sp B	2	576-643
			Melinna heterodonta	27	294-643
			Melinna oculata	1	840
			Mooresamytha bioculata	5	253-826
			Mugga wahrbergi	1	643
			Paralysippe annectens	23	542-860
			Samytha californiensis	3	295-797
			Ampharetidae sp SD1	1	643
		Amphinomidae	Chloeia pinnata	33	253-466
			Pareurythoe californica	1	353
		Aphroditidae	Aphrodita japonica	1	297
		Capitellidae	Anotomastus gordioides	1	502
			Capitella capitata CMPLX	2	298-337
			Decamastus gracilis	19	253-321
			Dodecamastus mariaensis	19	502-800
			Heteromastus filobranchus	15	290-660
			Mediomastus ambiseta	1	506
			Notomastus magnus	3	294-660
			Notomastus sp A	36	352-380
			Notomastus sp base 1	1	553
		Chaetopteridae	Phyllochaetopterus limicolus	27	253-860
			Spiochaetopterus costarum	8	298-860
		Cirratulidae	Aphelochaeta glandaria CMPLX	37	253-830
			Aphelochaeta monilaris	45	253-404
			Aphelochaeta williamsi	2	353-506
			Aphelochaeta sp base 1	1	826

	Chaetozone hartmanae	2	305-321
	Chaetozone setosa CMPLX	5	294-306
	Monticellina cryptica	3	253-813
	Monticellina tesselata	16	295-857
	Protocirrineris sp B	1	825
Cossuridae	Cossura candida	2	300-506
	Cossura pygodactylata	1	643
	Cossura sp. A	6	292-643
Dorvilleidae	Dorvillea (Schistomeringos) longicornis	5	294-305
Eunicidae	Eunice americana	2	294-300
	Marphysa sp A	1	253
Flabelligeridae	Brada villosa	12	434-643
	Pherusa neopapillata	3	305-506
Glyceridae	Glycera americana	6	290-310
	Glycera branchiopoda	4	713-830
	Glycera nana	26	253-506
	Glycera tesselata	1	297
Goniadidae	Glycinde armigera	38	290-840
	Goniada annulata	1	466
	Goniada brunnea	7	290-380
	Goniada maculata	3	290-300
Hesionidae	Gyptis sp alpha	1	506
	Podarkeopsis glabrus	3	298-305
Lumbrineridae	Errano lagunae	4	294-353
	Lumbrineris californiensis	1	305
	Lumbrineris cruzensis	24	290-434
	Lumbrineris index	5	292-506
	Lumbrineris japonica	2	298-380
	Lumbrineris latreilli	1	305
	Ninoe tridentata	2	294-297
	Scoletoma sp A	1	253
	Scoletoma tetraura CMPLX	3	295
Maldanidae	Euclymeninae sp A	3	294-680
	Maldane californiensis	3	553-643
	Maldane sarsi	39	253-580
Nereididae	Gymnonereis crosslandi	2	253-580
	Nereis procera	4	292-305
Nephtyidae	Aglaophamus erectens	14	253-310
	Nephtys caecoides	2	300-600
	Nephtys cornuta	43	253-830
	Nephtys ferruginea	14	294-305
Onuphidae	Diopatra ornata	1	300
	Diopatra tridentata	1	305
	Onuphis iridescens	34	253-434
	Onuphis sp 1	1	292
	Paradiopatra parva	8	295-310
	Praxillella pacifica	1	294
Opheliidae	Ophelina acuminata	1	553
Orbiniidae	Califia calida	1	680
	Leitoscoloplos pugettensis	15	290-404

Oweniidae	Galathowenia oculata	1	680
	Myriochele gracilis	4	321-643
	Myriochele olgae	3	294-643
Paraonidae	Aricidea (Acmira) catherinae	2	295-298
	Aricidea (Acmira) horikoshii	1	840
	Aricidea (Acmira) lopezi	4	294-660
	Aricidea (Acmira) rubra	1	860
	Aricidea (Acmira) simplex	3	797-830
	Aricidea (Allia) antennata	3	295-300
	Aricidea (Allia) hartleyi	1	300
	Aricidea (Allia) sp A	1	253
	Aricidea (Allia) sp beta	1	643
	Levinsenia gracilis	5	253-305
	Levinsenia multibranchiata	3	295-305
Pectinariidae	Pectinaria californiensis	50	290-502
Phyllodocidae	Eulalia californiensis	1	295
	Eulalia levicornuta	3	294-305
	Nereiphylia castanea	1	295
	Paranaitis polynoides	1	295
	Phyllodoce cuspidata	1	310
	Phyllodoce groenlandica	9	253-380
	Phyllodoce hartmanae	5	295-434
	Sige sp A	13	294-337
Pllargidae	Ancistrosyllis groenlandica	24	294-580
	Sigambra tentaculata	5	506-643
Polynoidae	Eucranta anoculata	1	713
	Harmothoe fragilis	1	826
	Hesperonoe laevis	2	295-797
	Lepidasthenia longicirrata	1	380
	Malmgreniella baschi	3	253-466
	Malmgreniella sanpedroensis	7	290-305
	Malmgreniella scriptoria	5	292-306
	Malmgreniella sp.	2	506-511
	Malmgreniella sp A	1	295
	Subadyte mexicana	12	290-656
	Subadyte sp base 1	1	404
Sabellidae	Chone sp base 1	1	380
	Chone sp C	1	502
	Fabrisabella sp A	2	294-576
	Potamethus sp A	1	600
Serpulidae	Protula superba	1	826
Spionidae	Dipolydora socialis	2	253-305
	Laonice cirrata	17	290-830
	Laonice nuchalis	6	290-797
	Malacoceros indicus	1	294
	Microspio pigmentata	1	292
	Paraprionospio pinnata	61	290-576
	Prionospio (Minuspio) lighti	8	292-306
	Prionospio (Prionospio) dubia	1	253
	Prionospio (Prionospio) ehlersi	19	292-580

			Prionospio (Prionospio) jubata	2	294-305
			Spiophanes berkeleyorum	17	290-404
			Spiophanes bombyx	1	253
			Spiophanes duplex	3	253-353
			Spiophanes fimbriata	17	253-860
			Spiophanes wigleyi	5	800-860
		Syllidae	Syllis (Ehlersia) heterochaeta	3	301-305
			Syllis (Ehlersia) hyperioni	1	253
		Terebellidae	Lanassa gracilis	3	600-703
			Phisidia sanctamariae	2	600-660
			Phisidia sp base 1	4	543-660
			Pista agassizi	2	297-305
			Pista estevanica	1	353
			Pista wui	45	290-840
			Polycirrus californicus	1	253
			Polycirrus sp A	2	300-353
			Proclea sp A	1	580
			Streblosoma sp B	1	305
		Trichobranchidae	Artacama coniferi	1	600
			Artacamella hancocki	1	580
			Terebellides californica	5	580-840
			Terebellides reishi	2	294-660
Cnidaria					
		Campanulinidae	Oplorhiza polynema	1	660
		Corymorphidae	Euphysa sp A	1	353
		Edwardsiidae	Metedwardsia sp A	3	840-857
			Scolanthus sp A	1	337
		Pennatulidae	Pennatula californica	1	703
		Stachyptilidae	Stachyptilum superbum	3	542-826
		Virgulariidae	Virgularia agassizii	1	749
Platyhelminthes					
	Polycladida				
		Leptoplanidae	Parviplana californica	1	326
Echiura					
	Echiurida				
		Thalassematidae	Arhynchite californicus	13	295-800
		Thalassematidae	Listriolobus pelodes	3	294-305
Mollusca					
	Bivalvia				
		Carditidae	Cyclocardia ventricosa	12	295-580
		Corbulidae	Caryocorbula porcella	1	443
		Cuspidariidae	Cardiomya planetica	1	295
			Cuspidaria parapodema	1	305
			Luzonia walleri	7	480-749
		Galeommatidae	Divariscintilla sp A	1	506
		Hiatellidae	Saxicavella pacifica	12	295-580
		Lucinidae	Lucinoma annulatum	3	294-790
			Parvilucina tenuisculpta	48	215-643
		Malletiidae	Malletia pacifica	4	326-486
		Montacutidae	Rochefortia compressa	9	295-660

		Rochefortia mortoni	1	300
		Rochefortia tumida	8	295-800
	Mytilidae	Dacrydium pacificum	6	502-840
	Neilonellidae	Neilonella ritteri	11	486-643
	Nuculanidae	Nuculana conceptionis	18	215-576
		Nuculana penderi	1	380
		Nuculana taphria	1	298
	Nuculidae	Ennucula tenuis	2	326-327
	Pectinidae	Delectopecten vancouverensis	6	294-857
	Tellinidae	Macoma carlottensis	31	215-466
		Tellina cadieni	7	294-305
		Tellina carpenteri	11	215-305
		Tellina modesta	1	299
		Tellina sp B	14	215-353
	Thyasiridae	Adontorhina cyclia	10	253-848
		Axinodon redondoensis	9	542-830
		Axinopsida serricata	25	215-443
		Thyasira flexuosa	4	253-502
	Verticordiidae	Dallicordia alaskana	1	576
	Vesicomyidae	Vesicomya elongata	1	790
		Vesicomya lepta	2	703-790
Gastropoda				
	Acteonidae	Rictaxis painei	1	327
		Rictaxis punctocaelatus	2	215-290
	Aglajidae	Aglaja ocelligera	2	302-305
	Aplustridae	Parvaplustrum sp A	1	215
		Parvaplustrum sp B	1	304
	Cancellariidae	Cancellaria crawfordiana	2	292-295
	Cerithiidae	Lirobittium rugatum	13	294-502
	Columbellidae	Amphissa bicolor	7	215-443
		Amphissa undata	3	295-300
		Astyris permodesta	23	300-857
	Cylichnidae	Acteocina culcitella	1	300
		Acteocina eximia	2	337-404
		Cylichna diegensis	3	295-353
	Drillidae	Suavodrillia kennecottii	1	353
	Diaphanidae	Diaphana californica	3	295-353
	Eulimidae	Balcis sp A	1	327
		Balcis oldroydae	3	215-326
		Eulima raymondi	1	215
	Gastropteridae	Gastropteron pacificum	16	292-680
	Philinidae	Philine auriformis	9	290-305
		Philine sp A	1	292
	Retusidae	Volvulella californica	2	309-553
	Ringiculidae	Microglyphis brevicula	5	290-713
	Rissoidae	Alvania rosana	6	486-643
	Turridae	Antiplanes catalinae	1	301
		Megasurcula carpenteriana	1	215
	unknown	Bullomorpha sp A	1	790
Scaphopoda				

		Gadilidae	Polyschides californicus	3	327-378
			Polyschides tolmiei	40	215-860
		Dentaliidae	Dentalium vallicolens	2	305-310
		Laevidentaliidae	Rhabdus rectius	16	215-826
	Aplacophora				
		Chaetodermatidae	Chaetoderma elegans	1	680
			Chaetoderma hancocki	5	553-830
			Chaetoderma pacificum	3	295-305
			Falcidens hartmanae	13	309-703
			Falcidens longus	6	292-321
			Falcidens macracanthos	10	292-506
			Furcillidens sp A	1	749
		Limifossoridae	Limifossor fratula	44	215-660
		Prochaetodermatidae	Spathoderma californica	5	580-660
			Chevroderma sp. A	2	643
Nemertea					
	Anopla				
		Carinomidae	Carinoma mutabilis	1	294
		Lineidae	Cerebratulus californiensis	22	294-830
			Lineus bilineatus	3	296-380
			Micrura sp	28	290-813
			Micrura wilsoni	1	800
		Tubulanidae	Tubulanus nothus	2	294-797
			Tubulanus polymorphus	9	297-857
		unknown	Palaeonemertea sp D	13	294-860
		Valenciniidae	Zygeupolia rubens	1	294
	Enopla				
		Amphiporidae	Amphiporus cruentatus	1	857
		Emplectonematidae	Paranemertes californica	1	353
		Prosorhochmidae	Prosorhochmus albidus	1	295
		Tetrastemmatidae	Tetrastemma candidum	1	298
Arthropoda					
	Ostracoda				
		Cylindroleberididae	Bathyleberis sp	2	543-703
		Philomedidae	Euphilomedes carcharodonta	1	290
			Euphilomedes producta	13	292-576
			Scleroconcha trituberculata	2	292-353
	Mysidacea				
		Mysidae	Boreomysis californica	1	643
			Holmesiella anomala	3	305-310
			Mysidella americana	2	327-378
			Pseudomma sp.	15	215-486
	Cumacea				
		Diastylidae	Diastylis pellucida	29	290-502
			Diastylis sentosa	1	353
			Diastylis sp C	1	576
			Leptostylis calva	2	580-600
		Lampropidae	Hemilamprops sp A	4	576-703

	Leuconidae	Eudorella pacifica	6	253-506
		Leucon declivis	7	466-840
	Nannastacidae	Campylaspis blakei	1	297
		Campylaspis canaliculata	5	553-713
		Campylaspis sp A	3	295-703
		Procampylaspis coenosa	2	309-327
Tanaidacea				
	Anarthruridae	Araphura cuspirostris	1	309
		Tanaella propinquus	2	309-353
	Apseudidae	Carpoapseudes caraspinosus	2	506-580
	Leptocheliidae	Leptochelia dubia	1	680
	Tanaidae	Zeuxo maledivensis	1	305
Isopoda				
	Anthuridae	Haliophasma geminatum	3	297-353
	Eurycopidae	Eurycope californiensis	5	502-703
	Gnathiidae	Caecognathia crenulatiforns	5	215-309
	Idoteidae	Synidotea calcarea	1	353
	Munnopsidae	Belonectes sp A	3	280-502
		Ilyarachna acarina	1	309
		Munnopsurus sp A	5	309-600
Amphipoda				
	Aeginellidae	n.gen. n.sp.	7	302-797
	Ampeliscidae	Ampelisca plumosa	8	553-860
		Ampelisca unsocalae	44	253-680
	Eusiridae	Rhachotropis barnardi	7	253-378
		Rhachotropis distincta	1	306
		Rhachotropis luculenta	4	294-337
	Isaeidae	Protomedeia prudens	2	295-296
	Ischyroceridae	Ericthonius rubricornis	2	294-295
	Liljeborgiidae	Listriella albina	13	294-830
	Lysianassidae	Aruga oculata	1	294
		Lepidepecreum n. sp	1	643
		Orchomene pacifica	1	580
		Pachynus barnardi	1	295
	Oedicerotidae	Americhelidium sp	2	296-480
		Bathymedon kassites	1	294
		Bathymedon pumilus	8	294-542
		Bathymedon roquedo	4	280-309
		Bathymedon vulpeculus	6	305-434
		Deflexilodes norvegicus	2	300-321
		Monoculodes emarginatus	3	253-305
		Monoculodes latissimanus	13	253-378
		Pacifoculodes barnardi	5	253-353
	Pardaliscidae	Nicippe tumida	10	294-576
	Phoxocephalidae	Harpiniopsis epistomatus	3	353-580
		Harpiniopsis fulgens	6	215-327
		Harpiniopsis niadis	1	643
		Heterophoxus affinis	1	303
		Heterophoxus ellisi	17	215-486
		Heterophoxus oculatus	1	298

		Paraphoxus sp 1 of Barnard	3	292-434
		Rhepoxynius abronius	1	680
	Podoceridae	Dulichia remis	1	576
	Synopiidae	Syrrhoe longifrons	3	253-326
Decapoda				
	Axiidae	Calocarides quinqueseriatus	3	296-486
	Crangonidae	Neocrangon communis	1	215
	Ctenochelidae	Callianopsis goniophthalma	2	656-800
	Hippolytidae	Spirontocaris sica	6	309-825
	Paguridae	Phimochirus californiensis	1	296
	Pinnotheridae	Pinnixa occidentalis	3	294-576
		Pinnixa scamit	2	296-380
Echinodermata				
Echinoidea				
	Amphiuridae	Amphiodia digitata	1	300
		Amphiodia urtica	3	294-300
		Amphioplus strongyloplax	1	295
		Amphiura arcystata	2	294-305
		Dougaloplus amphacanthus	5	290-305
	Asteronychidae	Asteronyx longifissus	1	656
	Brissidae	Brissopsis pacifica	8	215-580
	Chiridotidae	Chiridota sp	2	294-302
	Molpadiidae	Molpadia intermedia	1	300
	Ophiuridae	Ophiospalma jolliensis	1	656
	Phyllophoridae	Pentamera pseudocalcigera	5	292-380
	Schizasteridae	Brisaster latifrons	18	215-580
	Strongylocentrotidae	Allocentrotus fragilis	16	280-434
	Toxopneustidae	Lytechinus pictus	3	294-305
Chordata				
Hemichordata				
	Harrimaniidae	Saccoglossus sp.	2	656-703
		Stereobalanus sp.	17	600-860
		331 taxa		

Southern California Association of
Marine Invertebrate Taxonomists

November, 2003 **SCAMIT Newsletter** Vol. 22, No. 7

SUBJECT: **Next meeting to be announced**

GUEST SPEAKER:

DATE:

TIME:

LOCATION:

Malmgreniella sanpedroensis Pettibone 1993
Dorsal view - anterior elytra removed
Point Loma Outfall, PLOO A-16 rep. 2
10Oct97 200ft. City of San Diego
Image by R. Rowe

(Below are the minutes from the September meeting; they have reappeared after an extended vacation. Enjoy.
- M. Lilly)

SEPTEMBER 2003 MINUTES

The meeting was held in the Collections Room at the Los Angeles County Museum. Problematic polychaetes that we will be encountering in the Bight'03 samples were discussed.

First, Rick Rowe addressed the topic of *Malmgreniella*. Rick had prepared color identification sheets for most species we encountered during the Bight '98 project. Since then, he has collected more color images and will prepare updated identification sheets. Due to the variation in several characters within different species of *Malmgreniella*, Rick found color identification sheets to be more useful than a key.

The SCAMIT Newsletter is not deemed to be a valid publication for formal taxonomic purposes.

The genus *Malmgreniella* can have either transverse or longitudinal spinule rows, although all of the species reported from California were previously described with longitudinal rows. A small patch of microtubercles is present near elytra scars, and the cephalic peaks are truncate. Rick is working on a table including quantitative morphometrics of several species of *Malmgreniella*. The table will compare length/width ratios of primary and secondary teeth on the neurosetae.

The first species discussed was *M. sanpedroensis*. It is distinguished by an abundance of red pigment which is found on the supraacicular lobes, dorsal cirri, elytra, and ventrum. The distal neurosetal spinule bracts do not approach the base of the secondary tooth, which is relatively long.

M. scriptoria is another species we may encounter. It is distinguished by white "pencil markings" on the elytra as illustrated (3.20B) in Ruff 1995. This species tends to be found at deeper stations. There are reddish brown spots concentrated in a triangle usually on the posterior of the prostomium. It has short, round supraacicular lobes. Some specimens of *M. scriptoria* have been found with transverse rows of spinules on the notosetae, but most have only longitudinal rows.

Next, Rick discussed a couple of cirratulid species. *Aphelochaeta petersenae* has a pronounced unstained ocular area and no dorsal staining on the posterior of the prostomium. We agreed that what we often call *A. petersenae* (Rick's identification sheet of 17 March 1998) is the provisional, *Aphelochaeta* sp LA1 of Brantley 1999. The next species Rick discussed was *Chaetozone* sp SD2 fide Rowe 1996. He handed out a new color identification sheet. Some *Chaetozone* specimens do not uptake stain easily and require extra staining time. In *C.* sp SD2 the first branchiae are inserted lateral to the dorsal tentacles and slightly anterior to the first setal fascicle. The prostomium stains darkly while its distal tip remains unstained. The shape of the pygidium is scoop-like, and there are broad dorsal and ventral gaps between spine cinctures. The neuropodial spines begin on setigers 70-95, and the notopodial spines begin on ~setiger 140.

The next taxon we discussed was Glyceridae. Rick showed us an image of a specimen of Hartman's *Glycera capitata* from Puget Sound. We examined the shapes of the superior and inferior lobes on anterior parapods and compared them to those of *G.* sp SD1 which were longer and thinner. We record *G.* sp SD1 uncommonly. Other similar species we will likely encounter in the Bight samples are *G. nana* and *G.* sp LA1. *G. lapidum* is similar and described in Böggemann 2002. Rick cautioned us that there is some variation in proboscidial organs in different areas of the proboscis. Leslie noted that staining the proboscis in methyl green can help highlight the structure on the organs.

There was a discussion about a few miscellaneous species that we will probably be encountering in the Bight samples. For our purposes, we agreed to call Karen Meissner's new species of *Spiophanes* from California *Spiophanes* sp K fide Meissner while awaiting the publication of Meissner's thesis research. This species is very similar to *S. fimbriata*.

While working on samples from deeper stations, be aware that *Lumbrineriopsis* is occurring in our area and could be confused with the usually shallow water species *Lumbrinerides*. Rick is preparing a voucher sheet for *Lumbrineriopsis*.

We then discussed the variation of pigment bands in *Onuphis iridescens*. This led to a discussion about other *Onuphis* such as *O. affinis* and *O. geophiliformis*. Since there were many questions that arose, it was agreed there should be a meeting devoted to Onuphids. Leslie Harris and Ron Velarde volunteered to lead the meeting in February.

Leslie showed us an image of a live specimen of *Cossura candida* from Bodega Bay. She said one of the best characters for identification is the pigment pattern on a live animal. For the preserved specimens which we normally see, the placement of the dorsal tentacle remains a problem for use in identification.

After lunch, Leslie gave us a wonderful slide show. The first part included images from a taxonomic workshop she attended at Bocas del Toro in Panama, on August 3 - 15, 2003. In addition to pictures of beautiful, live polychaetes, she showed us slides of animals from the Gamboa Eco-Reserve such as capuchin monkeys, crocodiles, and iguanas. The second part of the show was a cryptofauna survey of Yaqara Bay, Fiji. She stayed at the Yaqara Pastoral Ranch, and the survey was part of the Artificial Reef Matrices (ARMs) project.

We were back to business with Tom Parker showing us an unusual capitellid. The specimen had 12 notosetigers with capillary setae and 10 neurosetigers with capillary setae in the thoracic region. The 12th notosetiger had mixed capillary setae and hooded hooks. The specimen was collected from a depth of 500m. There was no identification resolution reached on this specimen and it was suggested that perhaps it was a morphological aberration.

Next Rick displayed images of a specimen of *Hesperone laevis* from Los Angeles County, station 8C at a depth of approximately 60m. Rick noted that he uses the key in Hartman's Atlas. We reviewed the characters for *H. laevis*; there are approximately 60 setae per fascicle, the neurosetae have course serrations, and there is ornamentation on the elytra which have a slight grayish color.

Rick then discussed Oweniidae methyl green staining patterns. He feels that this character is reliable in identifying San Diego specimens. Rick passed around images of staining patterns of three species.
Myriochele striolata specimens have a diagonal band on the prostomium.
M. gracilis specimens have a parallel band on the prostomium.
M. pygidialis specimens have three triangles that encircle each of the first three setal fascicles. Rick reported that an Oweniid key is in progress.

Larry Lovell discussed the recurring taxonomic issue of *Levinsenia oculata* vs. *L. gracilis*. He examined the type material to see if that material supported separation of *L. oculata* from *L. gracilis*. His examination revealed that the holotype and paratype material of *L. oculata* should be referred to *L. gracilis*. It seems that Hartman considered the reddish prostomial pigment as eyespots, and those specimens with more pigment were designated as the new subspecies *Paraonis gracilis oculata* (see

Hartman 1957). Later she elevated *Paraonis oculata* to specific rank (see Hartman 1969). While the prostomial pigment is variable, other characters such as branchial count and modified setae are consistent for local specimens of *L. gracilis*. Larry volunteered to produce a provisional sheet for specimens that we've been calling *L. oculata*. In Southern California, *L. gracilis* and *L. multibranchiata* are valid taxa as is *Levinsenia* sp SD1 whose May 2000 voucher sheet by Kelvin Barwick was discussed briefly.

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SCAMIT OFFICERS:

If you need any other information concerning SCAMIT please feel free to contact any of the officers at their e-mail addresses:

President	Kelvin Barwick	(619)758-2337	kbarwick@sandiego.gov
Vice-President	Leslie Harris	(213)763-3234	lharris@nhm.org
Secretary	Megan Lilly	(619)758-2336	mlilly@sandiego.gov
Treasurer	Cheryl Brantley	(310)830-2400x5500	cbrantley@lacsd.org

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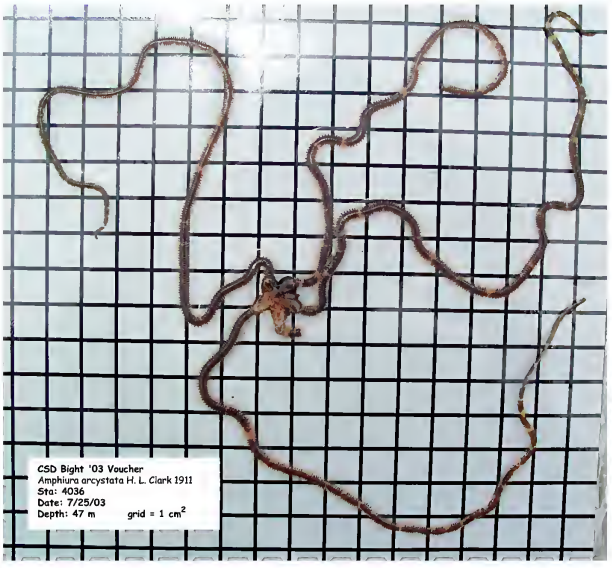
SCAMIT
C/O The Natural History Museum, Invertebrate Zoology
attn: Leslie Harris
900 Exposition Boulevard
Los Angeles, California, 90007

Southern California Association of
Marine Invertebrate Taxonomists

Dec. 03/Jan. 04 **SCAMIT Newsletter** Vol. 22, No. 8/9

SUBJECT:	**How to legally transport biological samples in alcohol or formalin.**
GUEST SPEAKER:	**Discussion Lead: Leslie Harris**
DATE:	**8 March 2004**
TIME:	**9:30 a.m. to 3:30 p. m.**
LOCATION:	**Los Angeles County Museum of Natural History 900 Exposition Blvd.**



- Since there was no official December meeting this volume will be the combined December/ January newsletters.

- M. Lilly

JANUARY 2004 MINUTES

The meeting was held in the Polychaete Collection Room at the Los Angeles County Museum of Natural History. Vice-President Leslie Harris passed around several pieces of new literature. Please see the bibliography at the end of the newsletter for a listing.

To begin the polychaete portion of the meeting, Kelvin Barwick distributed a table of characters of nine City of San Diego and SCAMIT species of *Polycirrus*. He used characters from Hutchings and Glasby 1986 to construct the table and requested that members review and use the table and send comments back to him. The morphology of the lower prostomial lip was not included in the table, and Larry Lovell commented that this character

is distinct in some species. Larry offered to send his notes on lower lip morphology to Kelvin to include in a final version of the table. It was also suggested that Kelvin add a column to his table including the distribution of nephridial pores.

Many SCAMIT polychaete taxonomists use methyl green staining patterns for identifying *Polycirrus*. While a few descriptions and illustrations already exist, it would be helpful to have a more comprehensive set to complement the characters listed in Kelvin's table. It was suggested that members take digital pictures of staining patterns and have them posted to the website in order to share the information.

Larry described some of his observations on *Polycirrus* that he made during sample processing. He found that *P.* sp A is usually found in its tube while *P. californicus* is not found in a tube. In addition, *Eteone pigmentata* and *Malmgreniella sanpedroensis* have been discovered to be commensal in the tube of *P.* sp A.

Leslie Harris volunteered to write up a protocol for identifying species of *Polycirrus* that we are likely to encounter in the Bight '03 samples. We agreed to put aside specimens of *Polycirrus* that we can not identify. Larry volunteered to be the specialist for this taxa and will examine any problematic specimens that we may encounter.

Larry led the discussion for the next topic of the day, Lumbrinerids. He reviewed the updates to his presentation at Scripps a couple of years ago. We are using *Scoletoma* "complex" for specimens previously identified as *S. luti*. Rick Rowe raised the question of whether we can use *S. luti* for a specimen that looks like the picture in the original description (Berkeley & Berkeley 1945) with the very long posterior postsetal lobe. Leslie replied in the affirmative and noted that *S. luti* specimens are rare in the Southern California Bight.

For identifying Lumbrinerids, use Rick Rowe's updated version of Larry's key. *Lumbrineris* sp E did not make the SCAMIT species list, however it is included in the updated key.

Larry commented that he recently recorded a *Drilonereis longa* from San Elijo. He cautioned that this is not the long, stringy, white *Drilonereis* that we previously referred to as *D. longa*.

Lumbrineriopsis sp SD 1 fide Rowe 2002 was briefly discussed. A specimen was recorded from San Diego station B-11 Rep 1 on January 9, 2002 at a depth of 289 ft. *L.* sp SD 1 has large, flask-shaped carriers and a subterminal tooth on the posterior hooks.

We discussed the Magelonidae next with Rick reviewing the 1991 key produced by Dean Pasko as an adaptation of the key in Hobson and Banse 1981(Dean originally cited it as 1984). Rick has distributed a page of modifications to couplets in that key and plans to release a complete revision of the key soon.

Magelona sacculata can be differentiated from other Bight species by the presence of lateral pouches between setigers 10 and 11.

M. hobsoni is uncommon, but has been reported by San Diego. It is has symmetrical pennoned tips on special setae and a truncate anterior margin (reduced anterior horns) while *M. pitelkai* has asymmetrical pennoned tips on special setae and a rounded anterior margin.

M. hartmanae is similar to *M. hobsoni* but has no inferior lateral lamellae on the 9th setiger.

M. californica has not been reported from this area; it occurs up north and is not listed in the SCAMIT Species List. Interestingly, the holotype is from Mission Bay, intertidal. Leslie pulled the specimen for examination and we found the prostomium was spatulate. The specimen was in poor condition so we didn't manipulate the anterior portion to look for lobes.

No one from our area has recorded *M. cerae*. Leslie pulled the type specimen for examination. We confirmed that there are no dorsal or ventral median lobes after setiger 9, and the uncini are bifid hooks. We also examined a paratype from Oregon. The methyl green staining pattern was determined as dark on the ventrum of setigers 3-6 and darkest on setigers 4 and 5.

M. berkeleyi is our most common Magelonidae, and this species has no dorsal median lobe on the 9th setiger. Rick suggested staining specimens with methyl green to confirm the identification. Typically the stain is intense from the beginning of the 5th setiger through two setigers, then lighter and speckled for another two setigers.

M. sp B fide Harris & Rowe 2003 is a new undescribed species that is very similar to *M. berkeleyi*. *M.* sp B differs in its possession of a regularly crenulated anterior margin and methyl green staining through most of the thorax. Magelonidae specimens often do not uptake methyl green stain or require a long time in a very concentrated stain solution to exhibit the typical patterns. So while stain patterns may help generally, some specimens may have to be identified based on morphology and their indeterminable staining ignored.

We moved on to examine a Trichobranchid brought by Tom Parker. It was collected off Palos Verdes at a depth of 400-500m. The specimen had large, ribbed lappets resembling "Batman's cape". Leslie passed around her notes describing *Octobranchus* sp A Williams and "*Bizzarobranchus*" (Trichobranchidae, genus B) Williams.
Characters of *Octobranchus* sp A include a linear body, eyes on the prostomium, and 16 thoracic setigers. Uncini start on setiger 5 (3-6 uncini/fascicle) and each has a scoop-like, striated structure under the main fang (visible at 400x-1000x). There are 3 pairs of lateral lappets on segments 2, 3, and 4; the pair on segment 3 is the largest. The lappets of segment 4 continue across the dorsum, forming a shelf-like ridge behind the last pair of branchiae. There are 4 pairs of cirriform, wrinkled branchiae. The notopodia have prolonged setal lobes and the parapodia protrude from the body.
Characters of "*Bizzarobranchus*" include 4 pairs of branchiae; the first pair is subulate and originates from the anterior of segment 1. The other 3 pairs of branchiae are short and thick. Lappets are present on segments 2, 3, 4, and 5; those on segments 4 and 5 are largest. The lappets and the thick branchiae are ribbed. Eyespots are usually present, and there are 16 thoracic setigers. Uncini start on setiger 6 (approximately 30 per fascicle), are heavily crested, and have a tongue-like structure below the main fang. We agreed that Tom's specimen was a "*Bizzarobranchus*".

The next family of polychaetes that we discussed was Glyceridae. At a previous SCAMIT meeting, we had reviewed Böggemann 2002 which included a revision of Glyceridae. We noted some potential problems with certain species and their diverse geographic ranges. Many Glycerid type specimens have been lost, and observations were based on illustrations and/or literature, not on examination of specimens from our coast. We discussed *Glycera americana* originally described from Society Island. Böggemann proposed that specimens similar to *G. americana* on our coast be called *G. pacifica*; however, no Eastern Pacific (local) material was examined. According to Böggemann, *G. americana* has 2 ridges and *G. pacifica* has 3 ridges on the proboscidial organs. We have observed both 2 and 3 ridges on proboscidial organs of local specimens. We will continue to use *G. americana* for our Eastern Pacific (local) specimens while examining additional material and with the realization that what we see may belong in some other, or new taxon. (Additional discussion of this issue appeared in the SCAMIT Newsletter, November, 2002, Volume 21, No. 7).

As reported from previous SCAMIT meetings, two forms of what we call *Glycera nana* are present. One form has subequal presetal lobes in mid-body setigers while the other form has presetal lobes with the inferior much larger than the superior. To standardize our *Glycera nana* identifications, we agreed to lump both forms as a single taxon and record the presetal lobe condition in the comments section of the data sheets.

Tony Phillips reported that he has already identified many Bight'03 polychaete samples. He found a *Glycera robusta* off Pt. Conception and reported a new *Marphysa* from shallow depths, in harbors and bays. He is erecting a provisional species, *Marphysa* sp HYP1 and will send out a voucher sheet soon. Otherwise he has been encountering our common species.

Larry and Leslie led a discussion on new restrictions surrounding the shipping of hazardous materials, more specifically, specimens in ethanol or formalin solutions. These new restrictions establish very specific criteria for the proper packaging, labeling, and shipping of hazardous materials. The rules and regulations are specific for the chemical, concentration of the solution, and the solution volumes. Even box construction and inner packing materials must be considered and packaging done by a certified agent. There have been very hefty fines imposed on violators for the improper packaging, labeling, or shipping of hazardous materials including specimens packed in preservative. Because these new Department of Transportation regulations effect the work performed by many SCAMIT members, this subject will be revisited in more detail (with possible solutions) at the March meeting.

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If you need any other information concerning SCAMIT please feel free to contact any of the officers at their e-mail addresses:

President	Kelvin Barwick	(619)758-2337	kbarwick@sandiego.gov
Vice-President	Leslie Harris	(213)763-3234	lharris@nhm.org
Secretary	Megan Lilly	(619)758-2336	mlilly@sandiego.gov
Treasurer	Cheryl Brantley	(310)830-2400x5500	cbrantley@lacsd.org

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The SCAMIT newsletter is published monthly and is distributed freely through the web site at www.scamit.org. Membership is $15 for the electronic copy available via the web site and $30 to receive a printed copy via USPS. Institutional membership, which includes a mailed printed copy, is $60. All new members receive a printed copy of the most current edition of "A Taxonomic Listing of Soft Bottom Macro- and Megainvertebrates … in the Southern California Bight." The current edition, the fourth, contains 2,067 species with partial synonyms. All correspondences can be sent to the Secretary at the email address above or to:

SCAMIT
C/O The Natural History Museum, Invertebrate Zoology
attn: Leslie Harris
900 Exposition Boulevard
Los Angeles, California, 90007

Southern California Association of
Marine Invertebrate Taxonomists

February, 2004 **SCAMIT Newsletter** Vol. 22, No. 10

SUBJECT:	**Review and Identification of Photos taken during B'03 trawls**
GUEST SPEAKER:	**none**
DATE:	**13 April 2004; TUESDAY**
TIME:	**9:30 a.m. to 3:30 p. m.**
LOCATION:	**SCWWRP** **for directions - www.sccwrp.org**

Diopatra tridentata Hartman 1944
Anterior Dorsum
SBOO I-6(2), 22 July 1997, 93 ft
City of San Diego
Image by K. Langan

FEBRUARY 9 2004 – DEEP WATER ONUPHIDS

At the beginning of our meeting Rick Rowe (CSDMWWD) passed around some digital images of *Aberranta* sp SD2 that he had recently identified in one of his deep water samples. The provisional sheet identifies the diagnostic characters and Rick will post it on the SCAMIT website soon. He also passed around another sheet of digital images of a strange polychaete, possibly a scalibregmatid, he found at one of their standard survey stations from 319 ft.

President, Kelvin Barwick, then gave a tour of San Diego's new two story laboratory building. It houses the Taxonomy, Data, and Field Operations groups along with Microbiology and Toxicity. It was very impressive with lots of space and all cubicles seem to have a window with a view of the channel outside the lab. Their lunch room is upstairs with a balcony to take advantage of the view and sunshine. However,

we all agreed the most impressive part of their new lab was the beautiful 35 panel glass sculpture titled "Micro-Macro" that resides in the entry foyer. This sculpture expands vertically up to the 2nd story. Each glass panel is a separate digital image of an invertebrate structure taken from an artistic viewpoint in shades of blue and back lit. We were told that it is even more impressive at night since the lighting casts wave like patterns on the glass from behind. It is truly a work of art that would impress even a non-marine biologist. It also provides a great guessing game for biologists to name all the structures and what animals they are from.

Ron Velarde (CSDMWWD) led our meeting on deep water onuphids in preparation for analyzing the Bight '03 benthic samples. He first distributed a species list of onuphids consisting mainly of species names from our SCAMIT Taxa list and other local deep water species reported in the literature. This list is attached at the end of the newsletter.

Those present at the meeting reviewed the list and made a few changes. It was noted that *Kinbergonuphis vexillaria* on Ron's species list is listed as *Onuphis vexillaria* in Fauchald 1982, and that *Onuphis pallida* should be dropped from the SCAMIT taxa list. A few old specimens identified as *O. pallida* have since been reviewed and found not to be that species. It had been erroneously left on the SCAMIT taxa list after review for the last edition.

For *Mooreonuphis* species use the table of SCAMIT list species written by Rick Rowe from 1997. It is available on the SCAMIT website as a PDF document under the taxonomic tool section. Check where the subacicular hooks start. There seems to be a great deal of variation amongst what setiger the branchiae begin. For those specimens without branchia check to see if there are others in the sample with branchiae that you might be able to identify. If you don't have a complete animal it still might be useful to list it as a provisional and note how many setigers long it is without branchiae. There are also two different color morphs of *Mooreonuphis nebulosa*; one with 2 pigment spots on the dorsum of each setiger and the other looks as if the 2 spots have grown together to form a sort of "dumbbell" shape.

Later in the day, Ron distributed a handwritten table of North Pacific species of *Mooreonuphis* that he had completed in the past. It has species listed that we might want to consider looking for while processing our Bight '03 samples. It will be included as an attachment with a future newsletter.

Below are the problems discussed at the meeting with our common *Onuphis* species:

For specimens with branchiae beginning on setigers 3 – 6: it is difficult to separate *Onuphis geophiliformis* from *O. affinis*, which is a new species described by Hilbig (1995) in the MMS Atlas from deep water. *O. geophiliformis* is similar to *O. affinis* in the first occurrence of subacicular hooks but differs in the number of setigers with pseudocompound hooks (3 for *O. geophiliformis* and 4 for *O. affinis*). Also note that juveniles of some species may only have branchiae from setiger 3-4 but the adults will have branchiae from setiger 1.

Onuphis eremita parva has single branchiae from setiger 1. The branchiae then become at least bifid, and usually pectinate with up to 5 filiments farther back after setiger 18-20. It is described as having interramal papillae present in setigers 4 thru 10 but these may be difficult to see. *O. erimita parva* is a shallow water species with dark transverse bands dorsally across each anterior segment. *Onuphis multiannulata* also has single branchiae from setiger 1 and pectinate branchiae further back. But *O. multiannulata* is found in deeper water, is virtually unpigmented and lacks interramal papillae on setigers 4-10.

It was decided by members that to avoid confusion, the species listed as *Onuphis* sp 1 of San Diego that originated from a 1993 Point Loma key to Onuphidae, would now be called

Onuphis sp A of SCAMIT. This animal has subacicular hooks first present from setiger 9 and the anterior setigers have a transverse pigment band across the posterior half of each segment. However, the thickness of the pigment bands can differ and sometimes this species can be confused with *Onuphis elegans* which also has pigment bands and subacicular hooks first present from setiger 9. The major difference between these two species is the shape of the branchiae, which is often best viewed from the side. *O.* sp A has branchiae that are thin and cylindrical along the entire body. *O. elegans* has branchiae from setiger 10 that are thickend with posteriorly directed triangular or wing-like shaped extensions.

The animal from deep water that we commonly identify as *Onuphis iridescens* may not be that species. Fauchald 1982 lists *O. iridescens* as being an intertidal to shallow subtidal animal and we commonly see it at 200-300+ m depth. The outer lateral antennae of our animals are much too long compared to the description in Fauchald 1982 which states that they only reach setiger 3 and the ceratophores are longer than their styles. Ron is currently reviewing a number of our local *O. iridescens* specimens to see if perhaps a provisional voucher sheet should be written up for our common deep water animals.

Next we discussed the three species of *Diopatra* on the SCAMIT taxa list. *Diopatra splendidissima* is from shallow water and has side pigment spots along the dorsum of the animal that generally begin in the posterior branchial segments and continue on for several segments. The spots are noticeable in the absence of body pigment on the rest of the animal. Ron pointed out another pigment character that he likes to use to help identify *D. ornata*. There is pigment on the subdistal portion of the antennae but the tips are white or unpigmented. Also, the anterior of the animal tends to be darker than the rest of the body. We examined several specimens of *D. ornata* at the meeting and this antennal pigment pattern seems to be consistent. *D. ornata* is generally found shallower and in coarser sediments than *D. tridentata* which typically has large dark spots middorsally on anterior segments.

From one of San Diego's Pre-Bight deep water (508m) test samples Rick Rowe (CSDMWWD) found specimens of *Kinbergonuphis vexillaria*, which he shared at the meeting. The most noticeable difference between this animal and most of our common onuphids was the short ceratophores (un-like *Onuphis*) and no pigmentation. While Rick couldn't see the pectinate setae, which is generally difficult on most onuphids, it was still easy to see that this animal was different from other common genera. Taxonomists should keep an eye out for this species in their deep water samples. As mentioned previously, Fauchald 1982 lists this species as *Onuphis*, but based on the generic revision of Paxton 1986, it gets transferred to *Kinbergonuphis*.

CHANNEL ISLANDS INTERTIDAL SURVEYS

Following is an email from Dan Richards with the field schedule for intertidal surveys at the Channel Islands.

"Greetings,
2004 will begin the 23rd year of monitoring in the rocky intertidal at Channel Islands National Park. I have put this off about as long as possible, but here finally, is the field schedule for the Spring Rocky Intertidal Monitoring at the islands.
Since the fall monitoring was so late in the year and the bio-tech is not on-board yet (and it looks like the March weather won't cooperate nicely), our monitoring won't begin until the end of March. I have tried to plan these trips around the normal transportation schedule, as always unforeseen changes could alter beginning and end dates by a day or two, extreme weather may force the cancellation of a trip. If you are interested in joining me for any of these trips let me know and I will discuss the particulars with you.

Monday, March 29-Friday, Apr 2 - West Santa Cruz Island (if the tech is on and the weather is OK, this may shift to March 15-19)

Wednesday, Apr 7-Wed, Apr 14 - Santa Rosa Island

Thursday, May 6- Tuesday, May 11 - San Miguel Island

Friday, June 4- Tues, June 8 - Anacapa, East Santa Cruz Is.

Dan"

Dan Richards
Channel Islands National Park
1901 Spinnaker Drive
Ventura, CA 93001
805-658-5760
dan_richards@nps.gov

NEW LITERATURE

Following are emails from member Kathy Langan and Leslie Harris with regards to a new polychaete book:

"FYI: I recently inquired about the 2003 Barnich and Dieter volume on "The Aphroditoidea (Annelida: Polychaeta) of the Mediterranean Sea" and wanted to pass on the response I received (including order information) in case any of you are interested in ordering it.
Thanks,
Kathy Langan"

Barnich, Ruth;Fiege, Dieter: The Aphroditoidea (Annelida: Polychaeta) of the Mediterranean Sea 2003. 167 pages, 74 figures, 6 tables, 2 plates, 30x21cm (Abhandlungen der Senckenbergischen Naturforschenden Gesellschaft, Band 559) ISBN 3-510-61353-8 paperback, US$ 52.94. Prices indicated do include postage and packing costs (surface mail). Payment is possible by cheque (for customers of the United States or Canada: personal US$-cheque) The cheque should be made out to:
E. Schweizerbart'sche Verlagsbuchhandlung (Nägele u. Obermiller), Johannesstr. 3A, 70176 Stuttgart, Germany. Or we do also accept payment by credit card — Visa and Mastercard (no American Express Card). If you will choose this method of payment, please let us know your exact credit card details as well as the expiry date and the security number (we suggest by Fax should be the most secure way — or split in two or three e-mails).
We are looking forward to receiving the confirmation of your order which might be placed by e-mail or Fax.
Kind regards,
Alexia Fabrizi
E. Schweizerbart'sche Verlagsbuchhandlung (Naegele u. Obermiller)
Gebr. Borntraeger Verlagsbuchhandlung
Science Publishers
Johannesstrasse 3 A
D-70176 Stuttgart
Tel. ++49-711-351456-0 FAX ++49-711-351456-99
Germany
e-mail: mail@schweizerbart.de"

And… Leslie's Response:
"I have a copy that Ruth was kind enough to send me. It's very good with the added bonus of 2 plates of color images taken by Dieter. There's almost no overlap with our fauna. The only species that occur locally are *Harmothoe fragilis* Moore, *H. extenuata* (Grube), and *H. imbricata* (Linnaeus). Otherwise our species are not even mentioned in discussions, so SCAMIT members may prefer to save their money for something closer to home.
L"

JOB OPPORTUNITY

Scientific Assistant
The American Museum of Natural History is seeking a Scientific Assistant to assist the Curator of Malacology with various tasks related to research on marine mollusks, potentially including sorting of bulk samples, histology, literature research, and data management. Will also assist in management and curation of a

large worldwide collection of marine, freshwater and terrestrial mollusks, plus associated library and photographic collections, including computerized cataloging, answering inquiries, supervising volunteers, filling loan requests, and hosting visitors. Must be willing/able to handle alcohol-preserved specimens, to lift reasonable loads, and to work at height on a safety ladder. Experience with word processing, databases, web-page management, and digital imaging, as well as possession of a valid driver's license, highly desirable. Background in systematics, invertebrate zoology, collections management, histology, and/or molluscan taxonomy preferred. Required: BS in biology or equivalent in a related field. Full time, $27,433/year + excellent benefits. Please email, fax or mail resume as soon as possible to:

Dr. Paula M. Mikkelsen,
Division of Invertebrate Zoology,
American Museum of Natural History,
Central Park West @ 79th St
NYC, NY 10024, fax 212-769-5277
(refer to "SciAsst JS"), mikkel@amnh.org.
EOE.

SCAMIT LISTSERVER CHATTER

Below are emails recently being circulated on the SCAMIT listserver regarding local crustacea:

Doug Diener, MEC - "Just when I thought things were getting easier! In processing the remaining misc inverts and making a voucher collection from a trawl off Oceanside at 250m I ran into problems with the Crangonidae and in particular *Neocrangon*. All the shrimp in question have two median dorsal carapace spines. There are three morphological types of *Neocrangon* in the samples: the most common species appears to be *Neocrangon communis* which fits the descriptions fairly well with the third through fifth abdominal somites being carinate and the rostrum not elevated or with adornment. The next most abundant type appears to be *N. resima* with an elevated rostrum and usually an obvious ventral blade, however these all have abdominal segments 3-5 being carinate, which is not in agreement with the keys. Then there are a few remaining specimens that lack the carinae but have elevated rostrums. I'm not sure whether the variability in the rostrum is causing confusion or we have hybrids or another species in our midst. I was wondering if anyone else has noticed this problem.
Make my day. Doug"

(In response)Dean Pasko, CSD – "Hi Doug,
I've noticed this inconsistency with the rostrum before (i.e., getting some intermediate stages of the ventral blade), but I haven't noticed the carinae problem. Most (can't say "all") of the *N. resima*-type specimens that we see in SD do not have carinae on abdominal somites 3-5.
Thanks for bringing it up though, and we'll look more closely from here on out.
FYI: while some of you Crustacea-types are reading....I want to add something about Oedicerotids, specifically concerning *Americhelidium* sp SD1 and *Americhelidium* sp SD2. I recently ran across "good" specimens of *Americhelidium rectipalmum*, *A. shoemakeri*, and *A. micropleon* (the latter requiring further confirmation) in samples from ABC labs. The two provisional species mentioned above are clearly different from the three described species. The provisional species are closest to *Americhelidium shoemakeri*. *Americhelidium* sp SD1 can be distinguished from *A. shoemakeri* by the presence of erect dorsal setae on pleonites 2 and 3, the less oblique Gn1 palm, and more robust Gn2 (see provisional voucher sheet). *Americhelidium* sp SD2 is more closely related to *A. shoemakeri* and can be distinguished by the less oblique Gn1 palm and the rounded postero-ventral corner of pleonite 2 (see voucher sheet).
So please use provisional voucher sheets to distinguish these animals. To date, *Americhelidium* sp SD1 and *Americhelidium* sp SD2 have only been recorded in SD.
Thanks,
Dean"

UPCOMING MEETINGS

The Southern California Regional Chapter of the Society of Environmental Toxicology and Chemistry is having their 2004 Annual Meeting. It will be held 21-22 May at Point Loma Nazarene University in San Diego. Program highlights include two short courses on Friday May 21 titled:
1) An Introduction to the Biotic Ligand Model for Predicting Metal Toxicity
2) The Southern California Coastal Index of Biotic Integrity: A Tool for the Protection of Aquatic Life Beneficial Uses.

On Saturday, May 22, there will be a Plenary session, Site-Specific Objectives: Science and Policy Considerations.
Pre-Registration and Abstract submission deadline is April 9, 2004. For more information please go to the website at:

www.socalsetac.org

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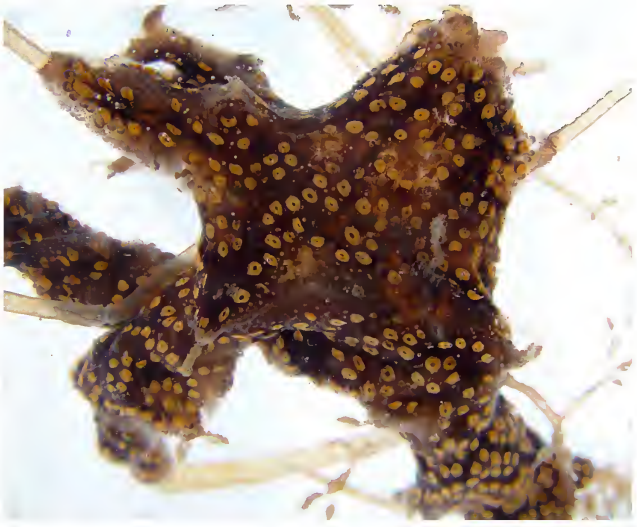
attn: Leslie Harris
900 Exposition Boulevard
Los Angeles, California, 90007

SCAMITed4GenusSpecies	DESCRIBERandDATE	H 44	H 68	F 68	F 82	MMS 95	P86	NOTES
Diopatra ornata	Moore 1911	X	X	X				
Diopatra splendidissima	Kinberg 1865	X	X	X				
Diopatra tridentata	Hartman 1944	X	X	X				
Hyalinoecia juvenalis	Moore 1911	X	X	X				
Mooreonuphis exigua	(Shisko 1981)					X	X	
Mooreonuphis litoralis	(Monro 1933)	X	X		X		X	
Mooreonuphis nebulosa	(Moore 1911)	X	X	X	X	X	X	Two color morphs
Mooreonuphis segmentispadix	(Shisko 1981)					X	X	
Mooreonuphis stigmatis	(Treadwell 1922)	X	X	X	X		X	
Mooreonuphis sp SD1	Rowe 1996 §							
Nothria occidentalis	Fauchald 1968	X	X	X	X	X	X	
Onuphis elegans	(Johnson 1901)	X	X		X	X	X	
Onuphis eremita parva	Berkeley and Berkeley 1941		X		X		X	
Onuphis geophiliformis	(Moore 1903)		X	X	X	X	X	
Onuphis iridescens	(Johnson 1901)	X	X	X	X	X	X	
Onuphis multiannulata	Shisko 1981						X	
Onuphis sp A	SCAMIT 1992					X		= Onuphis sp "intermediates" sensu Hobson (1971); O. sp 1; O. sp SD1
Paradiopatra parva	(Moore 1911)	X	X	X	X	X	X	
Rhamphobrachium longisetosum	Berkeley and Berkeley 1938	X	X	X		X	X	
Additional Species								
Anchinothria hiatidentata	(Moore 1911)		X		X		X	
Diopatra neotridens	Hartman 1944	X		X				
Diopatra obliqua	Hartman 1944	X						
Hirsutonuphis zebra	(Berkeley and Berkeley 1939)	X			X		X	
Hyalinoecia stricta	Moore 1911		X	X				
Kinbergonuphis abyssalis	(Fauchald 1968)			X	X		X	Probably Paradiopatra fide Paxton (1986)
Kinbergonuphis cedroensis	(Fauchald 1968)			X	X		X	
Kinbergonuphis microcephala	(Hartman 1944)	X	X	X	X		X	
Kinbergonuphis mixta	(Fauchald and Hancock 1981)				X		X	Probably Paradiopatra fide Paxton (1986)
Kinbergonuphis paradiopatra	(Hartman 1944)	X	X		X		X	
Kinbergonuphis pigmentata	(Fauchald 1968)			X	X		X	
Kinbergonuphis proalopus	(Chamberlin 1919)			X	X		X	Onuphis profundi Fauchald 1968 is a synonym fide Fauchald (1982)
Kinbergonuphis pygidialis	(Fauchald 1968)			X	X		X	
Kinbergonuphis vexillaria	(Moore 1911)	X	X	X	X	X	X	fide Paxton (1986)
Leptoecia abyssorum	Chamberlin 1919			X			X	
Mooreonuphis guadalupensis	(Fauchald 1968)			X	X		X	
Mooreonuphis microbranchiata	(Fauchald 1968)			X	X		X	
Mooreonuphis veleronis	(Fauchald 1980)	X	X		X		X	Nothria stigmatis intermedia Hartman 1944 is a synonym
Mooreonuphis sp SD2								
Onuphis affinis	Hilbig 1995					X		
Onuphis farallonensis	Hobson 1971				X		X	
Onuphis mexicana	(Fauchald 1968)			X	X		X	
Onuphis pallida	(Moore 1911)		X		X		X	
Onuphis similis	(Fauchald 1968)			X	X		X	
Onuphis vibex	(Fauchald 1972)				X		X	
Rhamphobrachium cristobalensis	Fauchald 1968			X			X	? juvenile of R. longisetosum (Paxton, 1986)

Southern California Association of
Marine Invertebrate Taxonomists

March, 2004 **SCAMIT Newsletter** Vol. 22, No. 11

SUBJECT:	**Pelgaic Invertebare Larvae**
GUEST SPEAKER:	**Kimo Morris**
DATE:	**9 August 2004**
TIME:	**9:30 a.m. to 3:30 p. m.**
LOCATION:	**Natural History Museum of Los Angeles County**



Ascidiacea sp SD 5
San Diego Bay
July 2003

8 MARCH MINUTES

The meeting began with President Kelvin Barwick calling for nominations for SCAMIT officers). A motion to nominate the current suite of officers was put forth and seconded. Please remember that anyone can be nominated and if you're shy you can always wait until the ballots are distributed (at the end of this newsletter) and then, in anonymity, vote for a "write in" candidate.

Next, it was reported by Leslie that the suggested changes to the constitution passed by a majority, so hopefully SCAMIT's constitution is now a bit more current. There is a copy attached at the end of the newsletter.

We then got into an avid discussion scheduling upcoming meetings. I am pleased to say that we have meetings scheduled through September at this point. We will post the schedule for the next few months on the website, and it is also below.

The SCAMIT Newsletter is not deemed to be a valid publication for formal taxonomic purposes.

August 9 - title to be announced (will deal with pelagic invertebrate larvae), Kimo Morris will be the guest speaker and it will be held at the Natural History Museum of Los Angeles County.

Sept 13 - deeper water echinoderms, Megan Lilly & Don Cadien, CSD Lab

Now, for the long awaited material on rules and regulations of hazmat transportation!… well, unfortunately, the reader will not find them below for two reasons: First and foremost, the Secretary (that would be me) managed to leave the minutes on the roof of her car and drive away, they are, sadly, lost to science forever (and yes, I did actually go dig through the trash bags at the park n' ride and look for them, if that makes anyone feel better, but my efforts were to no avail). Secondly, SCAMIT is not in a position, for liability reasons, to list rules and regulations for hazardous material transportation and have it used as an advisory per se. It would be too easy for me to make a simple typo and have someone be fined if they followed the SCAMIT newsletter instructions. Therefore, these two reasons considered I will give a brief synopsis of the overall message of the meeting which was basically that most of us are in violation most of the time when transporting or shipping specimens.

Leslie started with a few horror stories of Universities and other schools paying up to $40,000 in violation fines. Mostly due to ignorance or an honest mistake, rather than a direct attempt to skirt the law.

The Natural History Museum of Los Angeles County decided to be proactive before being fined and arranged for a three day workshop tailored to their specific needs of ethanol and formalin transport. After completing the workshop, Leslie Harris is now certified to deal with proper packaging, and labeling and shipping of hazardous materials.

There are courses on the internet that one can take in order to become certified, but they tend to not be as specific as the workshop Leslie attended.

At this point Leslie gave everyone in attendance a thick packet containing examples of training manuals from her class, MSDS sheets on Ethanol and Formalin, examples of properly and improperly filled out "Shipper's Declaration for Dangerous Goods" labels (even such minutiae as whether or not roman numerals versus standard numbers are used can be the difference between being fined or not), and the list goes on. It was SCAMIT's decision to not try to distribute this hand-out as it is too large (and therefore too costly to the organization) and I'm sure it was not intended for mass distribution.

The good news in all this is that there is one "loophole" if you can call it that, to some of the strict rules and regulations concerning the transport of specimens (in our case) and that would be MOT, or Materials of Trade.

To learn more about MOT go to:

http://hazmat.dot.gov/pubtrain/mot42c.pdf

After a lengthy discussion on the fine details of rules and regulations and review of the hand-out, we got to the "fun" part – packaging. To summarize:

Vial lids must be taped closed
The vials must then be placed in plastic bags
The plastic bags must then be filled with vermiculite or shredded paper
The bags full of vials and vermiculite must then be put in a box
The box must be filled with vermiculite or shredded paper
After the box is taped shut with such efficiency that it will take two hours and three sets of scissors to open it…
The box must be dropped six times from a

height of 4 feet to test its integrity (it should be an honest box).
("I don't know why she swallowed the fly… perhaps she'll die…")

On a lucky note, one can buy kits that come with all the necessities for packaging and shipping specimens. Ask Leslie for details on how/where to purchase such kits.

Considering the morass of detail and strict regulations now required to ship specimens, and the hefty, hefty fines that can be levied if a mistake is made, it was suggested by Leslie that people/organizations should consider scheduling a certification workshop tailored to their needs as the Museum did. SCAMIT is actually in the process of looking into this very idea, and may eventually be scheduling such a workshop at SCCWRP or some other location.

For more information regarding the subject of Hazardous Material transport see these websites:

http://www.beyondcompliance.net/

and the University of Alberta, Canada has some helpful information on its site. Click on the Transportation of Dangerous Goods section at:

http://www.biology.ualberta.ca/facilities/safety/

LATE

You will find below candidate statements. Attached at the end of the newsletter are the election ballot, a copy of the new and improved SCAMIT Constituion, and the 2003-2004 Treasury Summary. All these items are extremely over-due and I apologize, but your Secretary has been heavily preoccupied with the Bight'03 project as well as the City of San Diego's standard monitoring programs. Hopefully this newsletter will represent a return to more normal conditions, however, when voting feel free to flex your constitutional muscle and write in your favorite candidate for this office or any other…

M. Lilly

CANDIDATE STATEMENTS

PRESIDENT
Kelvin Barwick

I graduated with a B. S. degree in wildlife and fisheries sciences from Texas A&M University in 1983. Currently I work for the City of San Diego's Ocean Monitoring Program as a marine biologist/taxonomist. My taxonomic specialties are Mollusks and Polychaetes. In the past I have worked both as an independent taxonomic consultant, and for private environmental consulting firms, accumulating over 14 years experience in invertebrate taxonomy. I have been an active participant in SCAMIT for over 10 years and served as its Secretary in 1991-92. I hope to continue to develop our goals and plans for the future.

VICE-PRESIDENT
Leslie Harris

Collections manager of the Allan Hancock Foundation Polychaete Collection, at the Los Angeles County Museum of Natural History. Ongoing research centers on taxonomy of the polychaete fauna of pacific North America, polychaete-algal associations (especially in *Macrocystis*), introduced species, and Caribbean reef polychaetes.

SECRETARY
Megan Lilly

Graduated from Humboldt State University in 1991 with a B.S. in Marine Biology. From 1991-1993, worked at the Santa Barbara Museum of Natural History where the taxonomy of marine mollusks was studied under Dr. Eric Hochberg, Paul Valentich Scott, and Henry Chaney. Currently working as a

marine biologist for the City of San Diego's Ocean Monitoring Program. Specialities include echinoderms, miscellaneous phyla and mollusks with an emphasis on cephalopods.

TREASURER
Cheryl Brantley

Cheryl is a marine biologist with the County Sanitation Districts of Los Angeles County. She has worked for the Districts for 16 years primarily as a polychaete taxonomist. She graduated with her B.A. degree in Aquatic Biology from the University of California, Santa Barbara in 1985. She has formerly served as Secretary of SCAMIT from 1994-98.

Please visit the SCAMIT Website at: **http://www.scamit.org**

SCAMIT OFFICERS:

If you need any other information concerning SCAMIT please feel free to contact any of the officers at their e-mail addresses:

President	Kelvin Barwick	(619)758-2337	kbarwick@sandiego.gov
Vice-President	Leslie Harris	(213)763-3234	lharris@nhm.org
Secretary	Megan Lilly	(619)758-2336	mlilly@sandiego.gov
Treasurer	Cheryl Brantley	(310)830-2400x5500	cbrantley@lacsd.org

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SCAMIT
C/O The Natural History Museum, Invertebrate Zoology
attn: Leslie Harris
900 Exposition Boulevard
Los Angeles, California, 90007

SCAMIT Treasury Summary 2003-2004

During the past fiscal year April 2003 – March 2004 expenses totaled $1,482.64 while our income, mostly from membership dues, totaled $2,200.47. Because our expenses were relatively small this year we actually netted a bigger profit ($717.83) than in previous years. Our biggest expense is still the hard copy version of our newsletter and its mailing. However, we have reduced costs associated with it by eliminating our blue and cream logo stationery. I'll miss it too, but we would rather spend the dollars on continuing with our great digital images of the animals we study. Our current membership is the highest it has ever been (117 members) due to some recent recruiting at the Southern California Academy of Sciences meeting in May. We also sold several SCAMIT T-shirts and mugs at the SCAS meeting but that won't be reflected in our financial summary until next year. We did not award any publication grants or honorariums this year but funds are always available for that purpose. Listed below is a summary of our income and expenses.

Account Balances

Checking	$1858.89
Certificate of Deposit	$9498.99
Total	**$11,357.88**

Expenses

Hardcopy newsletter	$988.31
Electronic newsletter	$150.00
Postage	$318.48
Stationery Supplies	$ 25.85
Total	**$1482.64**

Income

Membership dues	$2084.25
Interest Income	$ 116.22
Total	**$2200.47**

SOUTHERN CALIFORNIA ASSOCIATION OF
MARINE INVERTEBRATE TAXONOMISTS (SCAMIT) CONSTITUTION
Revised 5 April 2004

Preamble

In view of the diversity of marine invertebrates in the Southern California area and the many organizations studying the ecology of these organisms, the Southern California Association of Marine Invertebrate Taxonomists was organized by scientists who recognized the need to standardize systematic practices and taxonomic usage through a program of inter-calibration. On April 21, 1982, the Association was founded and a Constitutional Committee was formed to establish a working framework. This Constitution is the result of the Committee's activities.

Article 1: Name

The organization shall be the Southern California Association of Marine Invertebrate Taxonomists (SCAMIT).

Article 2: Purpose

The purpose of the Association shall be to develop standard procedures in systematic practices and taxonomic usage for marine invertebrates in the Southern California region. This will be accomplished primarily through an inter-calibration program and the exchange of information among persons interested in marine invertebrate taxonomy. This will include specimen exchange and confirmation, literature exchange, the periodic publication and distribution of standardized taxonomic listings, support for taxonomic quality control efforts, and financial support of taxonomic publication, and guest lecturers. SCAMIT will also own and operate an Internet website to further these purposes.

Article 3: Membership

Section 1: Membership

Membership in the Association is open to individuals or institutions interested in the systematics and ecology of marine invertebrates. Membership can be obtained upon written application to the Treasurer with an accompanying payment of dues.

Section 2: Types of Members

Only Charter, Individual, Institutional, and Honorary members are recognized.

Section 3: Rights of Membership

Honorary life members and all other members whose dues have been paid for the current year shall be considered members in good standing and shall be entitled to receive notices of the Association's activities, vote at meetings or by mail, and participate in any activities sponsored by the Association.

Article 4: Dues

Dues shall be fifteen dollars ($15.00) annually with electronic format newsletter, thirty dollars ($30.00) per year with mailed paper newsletter format, and sixty dollars ($60.00) per year for institutional members. Dues are collected during the month of May for all members.

Article 5: Officers

Section 1: Officers

The elected officers of the Association shall be the President, Vice-President, Secretary, and Treasurer.

Section 2: Term of Officers

All elected officers shall be elected by a simple majority vote of the members voting in the election. Officers may hold the same office for an unlimited number of terms. Newly elected officers shall assume the responsibilities of their office in April and continue through March of the following year.

Section 3: Election of Officers

Request for nominations will be entertained in the December newsletter and at the January meeting. Election shall be by means of a ballot sent out in the February newsletter. Ballots shall be sent to members in good standing. Results of the election will be announced in the newsletter.

Article 6: Meetings

The Association shall normally meet on the second Monday of every month. The President may change the date, venue, or content of a scheduled meeting if conditions arise to warrant such changes.

Article 7: Limitations

The purpose of the Association is listed in Article 2 of the Constitution. Lobbying, or any activities specifically designed to influence legislation, support political groups, or advance popular, political, scientific, or religious causes are not among the objectives of the Association and neither the Association nor any official group within the Association, or officer identifying themselves as such, shall engage in such activity.

Article 8: General Prohibitions

Notwithstanding any provision of the Constitution or Bylaws which might be susceptible to a contrary construction:

a) The Association shall be organized exclusively for scientific and educational purposes;
b) The Association shall not participate in, or intervene in political campaigns on behalf of any candidate for public office (including the publishing or distributing of statements);
c) The Association shall not be organized or operated for profit;
d) The property of this Association is irrevocably dedicated to scientific and educational purposes and no part of the net income or assets of this Association shall ever inure to the benefit of any officer or member thereof or to the benefit of any private person. Upon the dissolution or winding up of the Association, its assets remaining after payment, or provision for payment, of all debts and liabilities of this corporation shall be distributed to a nonprofit fund, foundation, or corporation which is organized and operated exclusively for scientific and educational purposes and which has established its tax exempt status under Section 501 (c) (3) of the Internal Revenue Code;
e) At no time shall the Association use its funds to hire Employees or acquire any real property. In the event the Association pays for professional or labor services to further its educational and scientific purpose, it shall be done on a contract or fee-for-service basis.

Article 9: Amendments

This Constitution may be amended by a two-thirds (2/3) majority of those voting at any meeting of the Association or in a mail ballot. In either case, notice of the proposed action will be sent to each voting member of the Association by the Secretary.

Article 10: Bylaws

The Association may enact Bylaws for interpretation and implementation of the Constitution. Bylaws may be adopted, amended, or repealed by a two-thirds (2/3) majority of those voting at any meeting of the Association or in a mail ballot. In either case, notice of the proposed action shall be sent to each voting member of the Association by the Secretary.

Article 11: Division

At the discretion of the officers, the Association may establish ad hoc committees to carry out activities under the overall sponsorship of the Association.

Article 12: Ownership

The acronym "SCAMIT", the Internet site listed as "<http//www.scamit.org>", the original art SCAMIT logos, and all other original items produced by the Association are copyrighted and protected by the Association under current copyright law. Items donated to the Association become its property and may be used or disposed of in accordance with the Association's purposes and goals.

BYLAWS

Bylaw 1: Types of Membership

The following types of members are recognized:

a) Charter - members who joined the Association between April 1982 and March 31, 1983.

b) Individual - Members who wish to be a part of the association and its activities.

c) Institutional - Organizations or groups who wish to be a part of the association and its activities.

d) Honorary Life - Membership awarded at the discretion of the executive committee in recognition of service to the association.

Bylaw 2: Duties of Officers

a) **President** - The president or designate shall preside at meetings of the Association, represent the Association's interest in external business affairs. The President's name will be listed on the financial accounts. The President will have possession of the Association Constitution, and perform such other functions as may be defined in the Constitution and Bylaws.

b) **Vice-President** - The Vice-President shall chair ad hoc committees, be responsible for tabulating and disseminating results of elections, and votes on Bylaws, and Amendments to the Constitution; and perform duties of the President during any period(s) when the President is unable to fulfill his or her duties as President of the Association.

c) **Secretary** - The Secretary or designate shall keep minutes for all meetings, produce the newsletter, issue notices for meetings, conduct the correspondence of the Association, and be responsible for ballot preparation. The Secretary will also keep a copy of the membership list.

d) **Treasurer** - The Treasurer shall collect dues, make necessary disbursements, keep the accounts of the association and monitor compliance with applicable federal and state laws and regulations. The Treasurer will present an annual summary of financial accounts in the newsletter. The Treasurer will inform the other officers of the current location of the Association's financial records. These accounts will be available for inspection by any elected officer upon request. All monetary funds of the Association are to be kept in FDIC insured accounts listing the Association name on the account title. The Treasurer's name will be listed on the financial accounts. The Treasurer will also maintain the current list of members in good standing and transmit a copy to the Secretary when the annual summary of accounts is produced.

Bylaw 3: Committees

a) An executive committee shall be formed, composed of each officer and will meet at least once per year to discuss the Association's activities. This Committee is authorized to expend SCAMIT funds to further the association's goals. Special projects or activities requiring the expenditure of SCAMIT funds are approved by a majority vote of the Committee. All such special projects will be announced in the newsletter and posted on the SCAMIT Internet web site. The Executive Committee is authorized to engage in fund raising to support the Association's goals and purposes through the sale of SCAMIT identified items. The Committee may also direct the Association to apply for grants or contracts that will support SCAMIT's purposes listed in Article 2.

b) The officers shall create ad hoc committees of volunteer members as needed to further the purpose of the association.

BALLOT FOR SCAMIT OFFICERS 2004-2005

Vote for one (1) nominee for each office. Please mail or return completed ballot to Leslie Harris by August 31 2004. You may return it to the Secretary or other attending officers at the August meeting. The address to mail it to is:

Attn: Leslie Harris
Worm Lab
Los Angeles County Museum of Natural History
900 Exposition Blvd
Los Angeles, CA 90007

President - The president presides at all meetings and represents SCAMIT in external business affairs.

____ Kelvin Barwick
____Write in: _____

Vice-President - The Vice-President chairs ad hoc committees, supervises the specimen exchange, tabulates election ballots, and fills in for the President as necessary.

____ Leslie Harris
____ Write in: _____

Secretary - The Secretary keeps minutes of the meetings, is responsible for the newsletter, and preparation of the ballots.

____ Megan Lilly
____ Write in: _____

Treasurer - The Treasurer collects dues, makes disbursements, keeps financial records, and makes an annual statement of the financial status of SCAMIT.

____ Cheryl Brantley
____ Write in: _____

2004-2005 SCAMIT Meeting Topics - Please suggest any topics you deem worthy of a SCAMIT meeting.

_____
_____

Southern California Association of
Marine Invertebrate Taxonomists

April, 2004 **SCAMIT Newsletter** Vol. 22, No. 12

SUBJECT:	**B'03 Echinoderms**
GUEST SPEAKER:	**none**
DATE:	**13 September 2004**
TIME:	**9:30 a.m. to 3:30 p. m.**
LOCATION:	**City of San Diego Marine Biology Lab** **2392 Kincaid Rd** **(contact M. Lilly for directions)**

Image by R. Rowe, CSD

APRIL MINUTES

The meeting began with president Kelvin Barwick calling for future meeting topics. There is a tentative plan to have a follow up to the "Future of SCAMIT" meeting held last year, however, our meeting schedule has been a bit discombobulated this year what with so many local members being consumed with working on B'03 projects. Hopefully we will get back on track soon. Our next scheduled meeting is 13 September and will cover echinoderms. It will be held at the City of San Diego's marine lab and will be lead by Megan Lilly, Don Cadien and Lisa Haney (who has promised new and exciting information on many of the strange holothuroids LACSD encountered). In addition, Lisa has been trying to drum up interest and support in a much needed crustacea meeting. We will keep you posted.

The SCAMIT Newsletter is not deemed to be a valid publication for formal taxonomic purposes.

Kelvin then brought up the topic of digital imaging, specifically, how to standardize the way in which the images are produced (which programs) and stored for SCAMIT archives. Also a standard is needed for those images associated with the newsletter. There were no decisions made at the time, but eventually it is hoped that a standard format will be developed.

Don Cadien then had the floor and announced that Don Reish is going to be contributing 7 boxes of reprints to SCAMIT. These will eventually need to be sorted and catalogued, perhaps at a future SCAMIT meeting.

A sad announcement was made by Ron Velarde. He informed those present that the Sea Slug Forum is no longer being supported by the Australian Museum. William Rudman is still working on it, but only as time allows.

With the business portion of the meeting over we got down to the subject at hand which was a review of the B'03 trawl invertebrates. Don passed around a species list of trawl vouchers from the various agencies. This list included both physical and photo vouchers. All species submitted were included at this point, including infaunal and pelagic animals, it will be edited at a future date

Representatives from different agencies gave a "slide show" (mostly power point presentations) of the animals they had seen during the summer's trawls. Kelvin Barwick put together an in-depth and extensive program of the City of San Diego's trawls, which reviewed their photo vouchers as well as images of species that were collected for specimen vouchers. City of San Diego had a number of provisional species within the sponges and the colonial ascidians. Trawls in San Diego Bay turned up many unknown (to us) and interesting animals within these two groups. For the sponges, all were photographed alive and intact and then "pieces" were taken back to the lab and permounts were made of the spicules (which were also photographed). Many species turned out to be the same as those seen in Bight '98 which Dean Pasko had thoroughly catalogued.

The colonial ascidians were photographed live, as well and then usually one, or part of one, was returned to the lab. Dissections of these animals have not yet been accomplished as Megan Lilly is quite unhappy with the prospect of sectioning colonial ascidians ("I don't do colonial ascidians") and to date, no other brave soul has volunteered for the task. The animals were beautiful in life but appear ugly as a prospect for sectioning.

As a side note, Rick Rowe, CSD, should be thanked for his contribution to the digital image collection. Not only is Rick a talented photographer and captured many of the species beautifully, but he also designed small, clear, plastic boxes of various sizes which were filled with sea water and then the animals were photographed live (submerged) through the side of the box. A 1cm black and white grid pattern was placed in the background for size reference. A simple, but ingenious system which created many wonderful images of animals looking somewhat normal instead of the usual flattened, shapeless and unhappy creatures we see on a measuring board.

Don Cadien was next to show the invertebrate image collection of LACSD. Most images were taken by Cheryl Brantley, Tom Parker or John Miller, and Don wishes to extend his thanks for their assistance. Many of the animals weren't necessarily vouchers, but species that were seen during some of their more interesting deep water trawls which were invalid due to torn nets, incorrect bottom times, etc.

For instance, they encountered a massive specimen of *Staurocalyptus* at 271m.This animal was rich with other species living in and amongst its spicules. Don was sorely

disappointed that the animal was from an invalid trawl and therefore he couldn't justify spending the day happily picking through its spicules looking for interesting "tidbits".

He also showed slides of their *Parastichopus* sp A which is often mistaken for "fish puke" as it is a very flaccid, pale, soft animal. It is white with a red dermis that is often mostly rubbed off, although one can almost always still find some red near the tentacles. Also, upon close inspection, small black spots can often be seen.

Slides of a juvenile *Parastichopus californicus* were shown, and it looked markedly different from an adult of the same species, so IDer's beware.

Another interesting find was a *Solaster borealis* with two *Munnidopsis depressa* on the dorsal surface, clinging to the arms. It was an interesting association not previously seen by anyone present. Some people suggested that the association was "net induced" but Don was not convinced of this due to the firm and symmetrical grip that was being displayed by the *M. depressa*.

Other animals seen in invalid trawls included, *Galathea californiensis*, and a species of *Alpheus*.

Two species of interest, but which will not be included in the data due to the fact that they are not epibenthic in nature, were, *Pasiphaea emarginata* and a polychelid lobster larva in the genus *Polycheles*. This last animal was most bizarre looking and threw Don for quite the loop upon initial examination. He has written about this animal in a previous newsletter (see April 2003, Vol. 21 no. 12).

Many interesting species were also encountered during the intercalibration trawls between agencies. To name a few:

Synallactes challengeri, *Hippasterias californica*, *Urticina* sp A, *Glyptolithoides cristatipes, Ceramaster leptoceramus*, and *Liponema brevicornis*.

All in all it was a fun day full of interesting photographs of unusual and often beautiful animals.

POLYCHAETE UPDATE

Following is Sergio Salazar-Vallejo's review of his work on the Flabelligerids at the Los Angeles County Museum of Natural History.

Californian Flabelligeridae (Polychaeta), 2

Sergio I. Salazar-Vallejo
Depto. Ecología Acuática
ECOSUR, Apdo. Postal 424
Chetumal, Q. Roo, 77000
MEXICO (salazar@ecosur-qroo.mx)

These are some brief comments on Californian flabelligerids, made after seeing most of the type material for this coast and supplemental specimens. Regretfully, there are still some types to review so the changes included here are considered tentative. The revision should be completed by the end of the year after another visit to the NHMLAC. Additional material lent by SCAMIT members which I could examine at that time would be very useful.

Brada Stimpson, 1854

Brada pluribranchiata is a valid species, not a junior synonym of *B. sachalina*. It is a smaller species but with about twice as many segments as in *B. sachalina* (18-22). Further, the papillae are smaller, arranged in 4-5 transverse rows, and slightly covered by fine sediment, while in *B. sachalina* the papillae are very large, arranged in 1-3 transverse rows, and covered by cemented sand grains.

For the local fauna, the name *Brada villosa* should be replaced by *B. pilosa* Moore. The differences between both species were indicated by Hartman, as already stated in my previous commentary, and validated by study of type material.

The deeper water specimens with extremely long setae collected by the LACSD & loaned to me by Tom Parker are closely allied to *B. verrucosa* Chamberlin. Even without the differences in setal length, however, *B. verrucosa* differs by having larger parapodia in setiger 2 while the LACSD specimens lack this enlargement. This is a consistent difference and will be employed to describe the local form as an independent species named after Tom Parker.

***Diplocirrus* Haase, 1915**

There may be more than two species in the California Current ecosystem. The SCAMIT form has not yet been studied in detail but might deserve an independent name because it differs from *D. capensis.*

***Flabelliderma* Hartman, 1969**

The name *Stylarioides papillosa* Essenberg, 1922, has to be reestablished as the type species as Hartman (1959, 1961) was incorrect in assuming that it was a homonym and in establishing the new name *F. essenbergae* (Hartman 1961). Hartman (1961) also misinterpreted Essenberg's original description and based her concept on a different species. *F. papillosa* has now been redescribed from fresh material, a neotype has been selected, and a new name will be introduced for the form described and illustrated by Hartman as *F. essenbergae.* Further, a form from Guadalupe Island, Mexico, apparently commensal with a subtidal sponge, is being described as an independent species and will be named after William Light.

The current concept of *Flabelliderma commensalis* may include three species, each living on a different sea-urchin host. The large black form living on *Centrostephanus coronatus* is being described and will be named after Robert Spies because he made several studies on specimens collected from that sea-urchin; the two others live on low intertidal *Strongylocentrotus purpuratus* and subtidal *S. franciscanus* and show striking differences in size and pigmentation. The form collected from *S. franciscanus* has an eversible pair of long tubes (nephridia?) on an anterior setiger. This may be linked to reproduction but more experimental and reproductive biology studies are required to determine this.

***Flabelligera* Sars, 1829**

So far, the only difference between *F. infundibularis* and *F. affinis,* is that the former has very dark neurohooks, so dark that even the rings are difficult to detect. However, I have not yet studied adequate materials from the latter species, and other differences may be discovered later.

***Ilyphagus* Chamberlin, 1919**

I. ilyvestis type material lacks the anterior end; it has apparently not been found again, and it has been redescribed.

***Pherusa* Oken, 1807**

The genus is being restricted; the only local species will be *P. neopapillata, P. papillata*, and a new species that lives in *Macrocystis* holdfasts and which has very long notosetae. This will be named for Genny & Shane Anderson who generously provided living specimens, holdfasts, and hospitality during two trips to Santa Barbara. *P. inflata*, on the other hand, will be used as the type species for an independent genus characterized by an anterior dorsal shield made of cemented sand grains.

The status of *Pherusa negligens* in relation to *P. schmidti* is still unresolved. I have asked some Russian colleagues to send type materials, but they are under a heavy shortage of funds and may not be able to do so. Perhaps this problem can be resolved by revising some alternative materials from the Bering Sea.

***Piromis* Kinberg, 1867**

The species recorded locally are *P. capulata, P. hospitis, and P.* sp. A Harris. The types of *P. hospitis,* considered missing since 1993, were found under another name in the collection. The first two species differ because *P. capulata* lacks foliose dorsal lappets on anterior setigers and has similar neurohooks throughout the body while *P. hospitis* has foliose, flattened dorsal lobes in anterior setigers and bidentate neurohooks with short rings in median and posterior setigers. *P.* sp. A is very similar to *P. hospitis* but has globose dorsal lobes which extend posteriorly on the body about twice as far as in *P. hospitis*. It has been incorrectly identified as both *capulata* (Hartman 1963, Hartman 1966, Hartman 1969) and *hospitis* (Blake 2000) as pointed out by Leslie. I intend to name sp. A in her honor. Some *Piromis* specimens with sediment cover restricted to few anterior setigers, and made of large sand particles, deserve a more detailed study.

Acknowledgments

This 6-month stay in Los Angeles has been very productive. It was possible thanks to the warm hospitality of Leslie Harris and David Ocker who allowed me to stay in their home; this, in turn, enabled me to save enough money from my Fulbright scholarship for my upcoming research activities in France. My SCAMIT colleagues have been very kind by allowing me to see their valuable materials.

Additional thanks go to Leslie for her help in improving my Spanglish in this commentary.

Please visit the SCAMIT Website at: **http://www.scamit.org**

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